

1892-08-22. Haynes to the Babylonian Exploration Fund. UPMAA\_Nippur\_08.08, 22-25. HO

Copy.

Newport, August 22, 1892.

I, the undersigned, John Henry Haynes, being familiar with the mounds of Niffer, and being acquainted with its neighboring people, in consideration of a salary of Two thousand dollars per annum for two years ending September 1, 1894, do hereby covenant and agree to return as speedily as possible to Niffer in behalf of the Babylonian Exploration Fund, to conduct excavations with Arab workmen, amounting in all to not less than 18,000 days' labor, to be completed not later than on the First day of May, 1894; the total cost of excavation, equipment, travelling expenses of self, freight and all other expenses of packing and transporting antiquities from Niffer to Constantinople, and such part as may be assigned to the Babylonian Exploration Fund to be boxed, shipped and delivered in Philadelphia; together with all other legitimate expenses pertaining thereto, not to exceed Ten thousand dollars, exclusive of salary, nor to exceed Fourteen thousand dollars, including two years' salary, which term of service shall expire on the First day of September, 1894.

It is agreed that the above mentioned amount shall be paid as follows:- \$4,000. at present, in cash or sterling credit; \$5,000. to be available on and after Jan. 1, 1893; and \$5,000. to be available on and after Jan. 1, 1894.

It is understood that monthly reports as to finances and results of work shall be forwarded to the Committee's Chairman, E.W. Clark, Esq., of Philadelphia.

P. I. and P. II. on paper attached and regarded as parts of this contract.

(signed) John Henry Haynes.

P. I.- In case the permit cannot be obtained for Niffer in a reasonable period (say by Dec. 1, 1892), Mr. Haynes is to return at once by most direct route to America, his travelling expenses being paid and his salary continues at rate of \$166.66 per month until 3 months after arrival, or else he is to receive a sum of \$750., in lieu of all claims upon the Committee for expense and salary.

P. II.- In case Mr. Haynes shows by his monthly reports, in the judgment of the Committee that the work at Niffer is not sufficiently productive to warrant continuance, then it shall be in the power of the Committee to order an abandonment of the exploration at any time, and under these circumstances, Mr. Haynes shall receive his travelling expenses back to Constantinople or America, and on arriving there his financial relations with the Committee shall be equitably adjusted; it shall be understood further that Mr. Haynes shall at all times have the right and duty of abandoning the work if he becomes convinced that it can not be prosecuted to a successful issue because of reasons beyond his control, and then in like manner his relations shall be a matter for equitable adjustment.

(signed) John Henry Haynes.

Aug. 22nd, 1892.

Schedule of Expenses.

Servants & Assistants,	\$700.00	
Freight, General Travelling		
Expenses between Baghdad & Niffer,	350.00	
Bringing water,	310.00	No. 1
Exchange,	50.00	
Equipment,	300.00	
Fuel & Lights,	190.00	
Living expenses,	900.00	
Photo. supplies,	200.00	
Correspondence,	50.00	
Guards, Gifts, Native Agent, Miscellanies,	<u>950.00</u>	\$4,000.00

Estimates for 18 months' Excavations at Niffer.

For labor in excavating,	\$3,100.00	
Salary \$ 1584. & travelling expenses of Commissioner,	1,900.00	
Travelling expenses of Director,	1,000.00	
Miscellanies (See No. 1),	4,000.00	
Salary of Director, two years,	<u>4,000.00</u>	\$14,000.00

List of Tablets mostly unburned packed in small Cases

Case N<sup>o</sup> 1 contains 68 sound tablets ~~the largest~~

"	"	2	"	81	"	"													
"	"	3	"	55	cracked	"													whose inscriptions are perfect
"	"	4	"	47	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
"	"	5	"	75	Sound	"													with slight defects
"	"	6	"	[ 5 ]	broken	"	"	"	"	"	"	"	"	"	"	"	"	"	
"	"	7	"	53	broken and defective	tablets													
"	"	8	"	63	"	"	"	"	"	"	"	"	"	"	"	"	"	"	
"	"	9	"	72	"	"	"	"	"	"	"	"	"	"	"	"	"	"	
"	"	10	"	129	fragments equal to and less than half tablets														
"	"	11	"	44	"														wrapped in paper after which this case was filled in uncounted several fragments small packed without paper.

Total = 755

1893-01-12. Haynes to E.W. Clark. UPMAA\_Nippur\_02.06, 1-2. HO

Aleppo Jan 12<sup>th</sup> 1893.

My dear Mr. Clark:

I arrived at Alexandretta on the 6<sup>th</sup> and in Aleppo the 9<sup>th</sup> through storm and mud, and still it rains with no promise of clearing.

I have had difficulty and delay to secure mules for the journey to Baghdad.

Yesterday I secured a man who today breaks his written guarantee, but fortunately I have found a mulateer from Mardin with 9 animals – horses and mules – and two men besides himself, who agrees to make the trip for 21 liras.

He has more animals than I want but I can do no better until some Baghdad caravan arrives and wants loads to carry back to B.

The loads are now bound up and the mulateers have gone to bring their animals. We shall go only three or four miles to night just to make a start, but tomorrow the serious journey begins, and I hope the skies will clear the roads dry soon.

I shall be in B. sometime from the 10<sup>th</sup> to the 15<sup>th</sup> of February if all goes well.

The abundant rains promise abundant crops. Wheat & Barley are already getting a good start.

Hastily and sincerely Yrs,

J. H. Haynes

1893-04-03. Haynes to E.W. Clark. UPMAA\_Nippur\_02.06, 8-10. HO

Niffer April 3<sup>rd</sup> 1893

My Dear Mr. Clark:

Your favor of Feb 13<sup>th</sup> has just reached me safely established in tents at Niffer and ready to begin systematic excavations this week.

One trusted servant has been seriously ill in bed for 19 days, but is now mending. Another has suffered to the extent of being almost incapacitated for service. This has increased my burdens; but thanks to the kind Providence that watches over all his children I have been equal to the demands upon my strength.

At length satisfactory friendly relations are established with Haji Tarfa and the sub chief nearest to us, who pledge protection at half the cost of the year 1890.

The chiefs in council set to work to secure the former terms, and as it is evident that our old enemies, the Es-Said Arabs, plan mischief it was necessary to conclude treaties with our friends.

Asking for two paid guards I was laughed to scorn and met by a firm demand for twenty. It required all the wit and patience I could muster to bring their demands down to ten paid guards at the former price per capita, and to secure these terms I threatened to return to the U.S. I could make no better terms and the chiefs being in need of money accepted my ultimatum when they saw they could do no better. It was as if they put me between two millstones and ground hard.

But I have their united good will and now that we have agreed to terms they try to render efficient service.

I am now building a store room and kitchen of mud and brick that we may not be burned out by would be robbers.

Oweing to press of duties I am unable to forward the monthly financial statement as I promise hereafter to do. I beg you to overlook the delay for this time.

The £/C for £800 is now in Mr Blockkeys hands. I shall use only £100 before Sept if all goes as I plan and I shall try to fulfil all plans and meet your expectations craving your indulgence for apparent delays which will impress your committee as needless.

I have pushed on as fast as I could under the circumstances and when I see you and your committee I am sure they will be convinced of the truth of this statement though I know how long the time seems to them while awaiting definite news which comes to them slowly.

I am

Very truly your

John Henry Haynes

1893-05-31. Haynes to E.W. Clark. UPMAA\_Nippur\_02.06, 12-13. HO

Niffer May 31, 1893

Mr. E.W. Clark

Chair of Baby. Ex. Fund.

Bullitt Building

Philadelphia Pa.

Dear Sir:

In sending you the accompanying Statement of Expenses for May I am more than glad to add a hasty word to say that we have discovered a room 120 feet S from our first years camp, whose floor, 20 feet below the surface is, so far as we have yet removed the accumulated earth, covered with tablets many of them bearing seal impressions. Among them are 20 clay seals.

It will require a couple of days to explore the whole room.

All the camp servants are in usual health and everything connected with our work is in shape and to my mind after a prolonged struggle with many difficulties.

My own health is better than it has been for several years and I do not fear the approaching heat of summer, but hope that these long days may bring us a good harvest of valuable inscriptions.

Next week I shall write Dr. Peters an account of our work up to this point and shall try this week to write him of the progress and state of our work.

We have 50 men now, and succeed in getting good service from them; but it takes my time to look after them.

Highest temperature to date is 102° in the shade.

I am

Your obedient Servant

John Henry Haynes

1893-09-02. Haynes to E.W. Clark. UPMAA\_Nippur\_08.03, 10-11. HO

Niffer Sept. 2<sup>nd</sup> 1893

To

Mr. E.W. Clark,  
Chairman of Baby. Exploration Fund.  
Bullitt Building  
Philadelphia, Pa.  
U.S.A.

Sir:

I have the honor to enclose herewith a statement of expenses for the five weeks ending today, it being inconvenient to observe the calendar months in these reports.

Comparing the estimates made in my letter of August 20<sup>th</sup> with this and preceeding reports you will observe that nothing has yet been charged on the salaries of assistants and servants, to whom something less than \$300.<sup>00</sup> will be due at the end of this month, which together with a suitable allowance to an agent in Baghdad, and to one in Hillah, comprise the debts of the expedition, for which settlement will be made at the expiration of our work.

This week 53 men were employed and 57 are engaged for next week.

The heat is less intense, the maximum temperature ranging from 97° to 103° in dense shade, which lower temperature affords great relief.

My next financial statement will be made September 30<sup>th</sup>.

I have the honor, Sir, to remain

Your most obedient Servant

John Henry Haynes

Director of Ex. to Niffer.

1893-09-30. Haynes to E.W. Clark. UPMAA\_Nippur\_08.03, 12-13. L-336.12. HO

Niffer Sept. 30. 1893

To

Mr. E.W. Clark:

Chairman of Baby. Ex. Fund.

Bullitt Building

Philadelphia, Pa.

U.S.A.

Sir:

I beg leave to enclose herewith an official statement of expenses for the four weeks ending today, which expenses are reduced to the lowest possible rates under the existing circumstances.

I also beg to state that since the beginning of this month we have happily found in the trenches and tunnels of the Temple Enclosure the following. - - - -

- 1 Door Socket of Ur Gur c. B.C. 2800.
- 3 Inscriptions of King Garne
- 65 Vase-fragments – 23 being inscribed –
- 1 Nose of a lifesize statue (black basalt)
- 1 Fragment of unknown Sculpture.
- 1 Tablet 13 feet below the Sargon level.

I have the honor, Sir, to remain  
Your most obedient Servant  
John Henry Haynes  
Director of Expedition to Niffer



1893-10-14. Haynes to Peters. UPMAA\_Nippur\_05.01, 91-92. HO

Niffer, Oct. 14<sup>th</sup>, 1893.

To

Rev John P. Peters Ph.D.

162 West 105<sup>th</sup> Street

New York U.S.A.

My Dear Dr Peters:

Oweing to press of duties, among which the packing of antiquities has proven an arduous task, it is impossible for me today to write you a full or satisfactory report of our work for the two weeks since last I wrote you.

We have just finished packing 6941 tablets and fragments of tablets – mostly fragments large and small – into 66 small cases of uniform size, to which the commissioner is now affixing his seal.

On the 10<sup>th</sup> instant was received from Mr. Blockey a telegram announcing the appropriation of £400. for the continuance of the work, upon receipt of which I immediately began to enlarge the trenches on the south-eastern buttress of the ziggurat and over the supposed place of sacrifice. The work on the buttress has so far been to remove a mass of mud bricks which naturally produces very little in tangible results; but I hope the results will in the end repay the cost of the labor expended upon it.

I cannot write more at this time and next week owing to disturbances among the Arabs may be unable to send away the post at all; but I will endeavor to make your committee glad by reason of the addition just made to my funds

Hastily and sincerely yours

J.H. Haynes

P.S. I feel in duty bound to add that cholera is round about us in its work of death, but the disease has not yet come nigh our camp and I trust that we may be spared from its ravages.

It is of course impossible to quarantine our camp and continue our work, yet every reasonable care and precaution is taken in point of sanitation and our work continues without interruption of any sort, though not without obstacles of various kinds.

The Lord is our Shepherd and He will carry us through in His own way.

J.H.H.

1893-10-28. Haynes to E.W. Clark. UPMAA\_Nippur\_08.03, 33-34. L-336,9. HO

Niffer Oct. 28<sup>th</sup> 1893

To

Mr. E.W. Clark  
Chairman of Baby. Ex. Fund  
Bullitt Building  
Philadelphia, Pa.  
U.S.A.

Sir:-

I beg leave to enclose herewith a correct statement of expenses for the four weeks ending today, and also to enclose a list of 7036 tablets and fragments of tablets recently packed into 66 small cases of uniform size.

Hence the number of tablets and fragments of tablets contained in each case is a fair index of their relative size.

Including the tablets previously reported we now have a grand total of 7791 tablets and fragments of tablets packed into 77 small cases duly sealed, labelled and described in a manner that I hope will facilitate division in Constantinople.

I have the honor, Sir, to remain

Your most obedient Servant

John Henry Haynes

Director of Expedition to Niffer

*Added by E.W. Clark:*

The list referred to in above letter was of the Contents of 66 cases – whole tablets 266, slightly injured 216, fragments 6540, whole discs 8, Broken discs 6, Total 7036 – the cases numbered 1 to 11 contained 755 of whole tablets & fragments.

D<sup>r</sup> Peters writes “The proportion of entire or practically entire tablets to fragments is as large as can be expected and fully as large as has usually been found in Babylonian excavations, or indeed, if we can rely absolutely on the testimony brought out in the recent British Museum trial in London, much larger than the proportion of good to bad in the famous excavations of Rassam at Abou Habbah”

E.W.C

1894-00-00. Haynes, Hilprecht, Meyer, Box labels. HSN 79E04–79E14. HO

*Handwritings: HVH = Hilprecht; JAM = Meyer; JHH = Haynes*

79E04            *HVH*        Von kleiner Kiste innerhalb no 99 (= Hay. no 10)

*JHH*            2 Blue thin Bottles  
1 Small Bottle  
1 Glass tube or cylinder  
1 Fragment of Handled Ewer Glass

79E05            *JHH*    N<sup>o</sup> 7            *HVH*    no. 93

*JAM*            1 Bronze melting pot (Ziaret)  
1 Bronze dish(?) (cancover) ("")  
1 Spherical jar VIII  
1 Tapering side cap (?)  
1 spherical jar (broken)  
1 Vase (ears at mouth)  
1 vase (wide mouth) containing  
1 small vase (flange top).  
2 Round bottom vases  
3 shallow dishes (1 broken).  
1 clay stand (brazier?) IV  
4 Shallow dishes  
1 Jar cover(?)  
4 Shallow dishes  
1 Rude dish  
1 Large vase neck(?)

Nearly all from VI and VIII

*HSN 79E06*        *JHH*    N<sup>o</sup> 6            *HVH*    no. 91

*JAM*            (In a corned beef can)  
(A) 6 Match boxes containing woven fabrics  
                  from the Jewel Jars, Mound VIII  
(B) 2 leaves and tube of gold (in envelope)

(C) 1 large string of beads (coffin 37)  
(D) 1 small string of beads (coffin 35)  
(E) Ring set (in envelope)  
Black bead (charred)

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1 Large mouth vase containing  
1 small vase, 1 small jar.  
1 small vase (bail handles.)  
1 small vase (wide mouth)  
1 large one handle jar  
1 Jar made of 2 flat dishes.  
1 spherical jar VIII  
2 Flat dishes (1 from VI)  
1 vase reeded sides  
1 one handle jar (small)  
2 clay models of boats (?) (broken)

79E07

*JHH*: N° 3      *HVH* no. 95

*JAM*      1 large *ill.* bowl  
from temple mound  
containing 2 Primitive bowls from low level

---

2 clay goblets (1 broken)  
2 vases  
1 slender pitcher mound VI  
1 *ill* pitcher mound VI  
4 small vases.  
1 lid(?).

79E08

*JHH* N° 87      *HVH* = 110

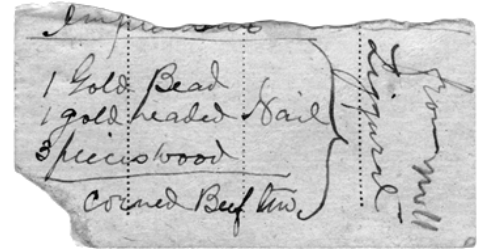
*JHH*      Containing  
46 Sound Tablets  
24 Slightly broken  
101 Fragmentary  
in 4 courses  
Hazam + Abud

79E09. Ordinary label torn across, after being written

HVH: no 11

JHH Important

1 Gold Bead	} from Ziggurat
1 gold headed Nail	
3 pieces wood	
corned Beef tin	



79E11 JHH N° 45 HVH = 123

56 Inscribed Charms + Fragments  
 1 " Dog of Terra Cotta.  
 1 Section of Inscribed Cone  
 10 Fragmentary Tablets reunited and wrapped  
 in parcels

} Obverse and  
 reverse of the  
 same label

79E10 HVH ? 124

JHH Containing  
 Unfinished Vase of Alu Sharshid  
 Black rude Mortar – Sargon level  
 Marble Mortar or Tent Pole

79E12 JHH No. 1 Containing Objects from Temple Hill

HVH 198

JAM 3 Pitchers  
 2 enamelled vases  
 9 or 10 rude clay cups.  
 1 twisted dish  
 1 Sargon brick stamp  
 1 miniature brazier  
 1 hand-made vase  
 1 flat bowl wine glass.  
 1 miniature jar  
 1 uninscribed seal  
 2 small beads  
 1 bottom of a jar

2 clay water taps  
 2 enameled lamps  
 7 fragments of cones  
 3 bronze nails  
 Lot of bronze fragments  
 2 clay disks.  
 1 stone staff head.  
 2 rings 2 whorls  
 1 clay ornament  
 2 stone pendants  
 3 clay tripods  
 1 fragment of clay whorl.  
 1 cylinder 1 copper coin  
 1 scrap of gold.

79E13

*JHH* N° 10 Containing *HVH* = 99.

<i>JAM</i>	In a wooden box.	Mound
	2 glass bottles (large)	VIII
	1 very small glass bottle	IV
	Neck of glass ewer	VI
	1 cylinder of glass	VI (ziaret)
<hr/>		
	1 rude clay melting pot (?) (Pre-ur Gur)	
	1 piece of roof spout	VI
	1 straight sided dish	VI
	Broken glass bottles	VI
	Blue enameled whorl with stick	VIII
	1 small green enamel vase	
	10 match-boxes full of mortar from 13×13×9 crude brick construction of ziggurat.	

79E14

*JHH* N° 12 Containing

6 small sound Tablets  
 104 Fragments of Tablets  
 from brick pavement N.W. of ziggurat. Nov. 9, 1894

*back side* 21 + 32 + 46 + 5

*1894-00-00. Hilprecht, Inscription on door socket. UPMAA\_Nippur\_05.02, 23. HO*

Translation by H.V. Hilprecht Ph. D. of inscription on Door Socket of Ur Gur discovered Sept 20, 1894.


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“To Bel, lord of countries, his lord, Ur-Gur, the powerful champion, King of the country Ur, King of Sumer and Accad, has restored E-Kur, his beloved temple”

1

Neue Niffer-Sendung  
(angekommen Montag, 6. Aug 1894)  
in Constant.

Sarcophage, grün emailliert

- 1) No. 41, July 1<sup>st</sup>, 1893, gross.
- 2) " ?, unnumer, "
- 3) " 82, Sept. 25<sup>th</sup> 1893, "
- 4) " ?, un. grosser, email.
- 5) " ?, kleiner Kinder Sarcoph. emailliert
- 6) " 83, Sept. 25, 1893, grosser grün email.
- 7) " 46, July 18, 1893 " "
- 8) " 50, July 24, 1893, grün, email.
- 9) " 49, July 24, 1893, gross \_\_\_\_\_ 9 Sarcop
- 10) ½ grün email. grosser Sarcophag 1 Fragm
- 11) 4 einfache Ring  in Terracotta 4 Ringe

*Remainder of page blank*

2




I Bur-Sin

- 1 iluBur-iluEN-ZU
- 2 EN-LIL-KI-a
- 3 dingirEN-LIL-LI
- 4 MU-PAD-DA
- 5 SAG-UŠ
- 6 E dingirEN-LIL[*ill.*]
- 7 UŠ lig-ga
- 8 lugal-Urum-ki-ma






9 " an-ub-da, tab-tab-da

## II Ur-Gur

- 1 Ur-<sup>dingir</sup>Gur
- 2 lugal Urum-<sup>ki</sup>-ma 
- 3 lugal Ki-EN-GI, Ki- (Sumer)
- 4 mulu E-EN-LIL-LAL
- 5 in-ru()-a



## III Išme-Dagan

- 1 <sup>Dingir</sup>Iš-me-<sup>dingir</sup>Da-gan
- 2 lugal KI-EN-GI  
KI -ra
- 3 UD <sup>dingir</sup>EN-LIL-LI
- 4 <sup>dingir</sup>NIN-IB
- 5 UR- lig-ga-na
- 6 PA-




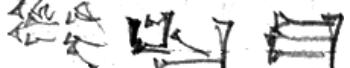

*continued p. 4*

3

## Bricks

- 1) Runde bricks, unbeschrieben 8
- 2)   <sup>ilu</sup>EN-Zu (Bur-Sin II v Ur)  
geschrieben, 9zeilig 2  
1, 1 (u. 1 auf Seite) 1
- 3) Ur-Gur, gestempelt, 5zeilig } 7  
1 }  
...geschrieben: 1. 1
- 4) Išme-Dagan, geschrieben, 12zeilig  
1,1. 5
- 5) Aššurbanapal, gestempelt auf  
Hauptseite 11 Zeilen (ist publiciert)  
1,1,11 4  
Gestempelt auf Nebenseite: 1 3  
1,1(einer ist einem anderen übergestempelt)
- 6) 1 unbekannter auf Seite 1.



4 *continued from p. 2*

- 7 mu-ni-in  -a  
8   
9 mu-na-du   
10  -ra  
11  ki-ag-a-ni  
12 mu-na-an-du-ba-a-an





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5


Bricks, là-bas

- |    |   |   |
|----|---|---|
| 1. | Ur-Ninib, grosse, gestemp.  | 6 |
| 2. | " " , kleine  | 6 |
| 3  | 1 Fragm grün emaiill. brick   |   |
| 4  | Half Bricks from wall<br>F S. E. extremity of wall<br>ohne Inschrift <br>and East Corner | 4 |
| 5  | From the South Corner<br>of the Zigurat <br>19 <sup>th</sup> March '94                   | 6 |

6 9330 (CBS 9330 = BE I/2, 113)

- 1 NIN-LILA-ra  
2 Er()-na-(BAD)b (*sic*)-bi  
3  (šangû) EN-LIL

cf D.A.W  
p 176 ff  
u AL<sup>3</sup>, 84

4	he-til-la-ku	
5	ur	ga
6	dup-sar	
7	E <sup>ilu</sup> EN-LIL-KA (SAG)-ge	
8	GA til-la-ku	den Tempel für Wohnstätte des Lebens
9	nam-til	zur Erhaltung des Lebens
10	 (ama)	-ku
11	nam-til	und des Lebens
12	dam tura-na-ku	seiner Schwiegertochter es geweiht
13	a-mu-na-šub	

7 9329 (CBS 9329 = BE I/2, 112)

1	iluNIN-LIL	
2	(u) iluEN-LIL-LA(L)	
3	dum ad-da-ge	
4	ga til-la-ku	für die Wohnstädte des Lebens
5	nam-til	für das Leben
6	dam tura-na-ku	seiner Schwiegertochter
7	a-mu-na-šub	es geweiht

8-9 9574 + 9575 + 9579 (CBS 9574+9575+9579 = BE I/2, 110)

1	ne(?) <u>-a</u>		
2	mu-ne- <u>gi</u>	(= šanânu wandeln târu ändern wenden)	diesen Namen änderte er,
3	zalam-bi	šalma-šu	sein Bild
4	azag za-gin-bi	kaspašu ibbu	sein glänzendes Silber
5	giš dig-ga-bi	išu -šu	sein ..... Holz
6	dingirEN-LIL-LA		schenkte er

7 EN-LIL<sup>ki</sup>-ku

dem Bêl

8 a-mu-na-šub

in Niffer.

*Rest of p. 8-9 blank*

*p. 10 blank*

11

~~Copien machen~~

Seiten

- |    |                               |    |
|----|-------------------------------|----|
| 1) | Für Palaeographie 2 v. Ur-Gur | 1½ |
| 2) | " " 2 v. Išme-Dagan           | 2  |
| 3) | Die grosse Nippur Tafel       | 2  |
| 4) | Brick v. Sargon               | 1. |

*Remainder of p. 11 blank*

*p. 12 blank*

[13]

Ergänzungsnoten

zu Band I

in Vorrede

14

Plate No.

Photographien

Sargon I Fragm. of a baked brick

[15]

Pl. No.

Ur-Ninib

Brick of baked clay, light brown, 31×15×7.

Nippur III, taken from a pavement underlying the South East Buttress of Z. (cf. Pl. 10, No. 18). Inscr. (written) 22.4×10, 13 li. The latter is remarkable because the beginning is at the bottom, & the end at the top of the brick, otherwise the same as Pl. 10, No. 18.

Cf. Haynes' report in  
letter of Dec. 23<sup>d</sup> '93

*Remainder of notebook empty*

*1894-00-00. Note about telegram. UPMAA\_Nippur\_08.07, 24. L-1409. HO*

Blockey Bagdad

Notify Haines (*sic*) Continue work under his letter August eighteenth 1894 – Will provide Five hundred Pound.

1894-04-20. Haynes to E.W. Clark. UPMAA\_Nippur\_04.03, 27-29. HO

Niffer, 20<sup>th</sup>, April, 1895.

To

Mr. E. W. Clark,  
Chairman of Babylonian Branch etc.  
Bullitt Building,  
Philadelphia, Pa.  
U.S.A.

Dear Sir:

In tangible results our excavations have again this week proven unproductive, but, because they are disappointing in immediate results, it does not follow that the labor has been spent in vain.

For two weeks our excavations have been confined to the southwestern borders of Mound X.

After a scrutinizing examination of the borders of the mound on this side, we shall carry the trenches toward the interior of the hill in the hope that tablets may there be found.

Greater labor is expended on excavating the borders of the mound because at a later period these places will be the dumping ground for the earth excavated from the interior of the mound.

Whether productive of tablets or otherwise this work must be done to avoid the possibility of covering to a still greater depth the buried treasures of antiquity.

The interior parts of the hill at this point may not contain tablets; yet it seems to be my plain duty to examine the spot as if it were known to conceal both tablets and cylinders, and I hope this method of procedure will meet the approval of yourself and of your committee, as it meets my own approval, for it seems to be the prudent course to be pursued.

On the fifth of January one of our older foremen, named Sultan, was summarily discharged from our service for crookedness, and his place filled by promoting a more efficient man to the vacant position.

Another foreman, whose name is Ismail, was quickly discharged on the sixth instant for resorting to the same sly methods that had caused the dismissal of his forerunner Sultan.

The expedition has long wanted to be rid of Ismail; but, until the day of his dismissal, could find no certain proof of the suspicions entertained against him, and patiently bided its time.

Only five gangs are now employed, since only five foremen now remain. The expedition would gladly increase its force of laborers, if trustworthy and efficient foremen could be found to lead a larger number of gangs.

At the present time however it is impossible to secure the services of such foremen, and it does not seem wise to employ those who cannot in all respects be depended upon for faithful service.

In the experience of two weeks, five gangs have performed the labor of six gangs, the basketmen of the sixth gang being distributed among the remaining gangs.

There has been no diminution in the number of workmen employed except a foreman and his assistant.

There is now left among our ten skilled workmen no spirit of theft, nor wish to deceive us.

I am as sure of the fidelity of those, who now remain with us, as of their bodily presence among us.

If our present force is small, it is nevertheless active, willing, and efficient; is easily controlled, and increasingly susceptible to points of honor.

Several younger men of promise are patiently acquiring a creditable degree of skill, and are learning the value of regular habits of industry and of honorable dealing with their fellow-men.

They will doubtless render good service to the expedition in the future, should explorations be long continued, as I trust will be the case.

Mahmoud Effendi still receives the commissioners salary, though for above three weeks he has not left his tent.

It being generally known that he is to be removed from his office, Mahmoud Effendi has no further influence among the Arabs, and has therefore no power to do us evil. He sits in his tent under the shadow of our house, and passively awaits the arrival of his successor.

So far as we can judge, there seems to be no special danger to threaten us until our next attempt to bring money to Niffer.

The Arabs round about us are generally quiet, though within the week a war between two subtribes has been declared, fought to its end, and peace established, to be soon broken. This war cost the lives of eleven men and has maimed more than three times that number.

I have the honor, dear Sir, to be

Your most obedient Servant

John Henry Haynes

Director etc.



*1894-04-29 and 1894-05-05. Cablegrams. UPMAA\_Nippur\_02.07, 57. TC*

Cablegram from Haynes, Bagdad, April 29, 1894.

Estimate Eight Thousand Dollars.

Advise return home refit. Tablets leave Busreh soon.

Answer May 5, 1894, to Haynes.

If you return Niffer immediately will guarantee funds on old basis until February. Otherwise work ended.

1894-05-10. Haynes to E.W. Clark. UPMAA\_Nippur\_03.11, 1-9. HO

Baghdad, May. 10<sup>th</sup>, 1894.

To

Mr. E.W. Clark,  
Chairman of Baby. Exploration Fund,  
Bullitt Building  
Philadelphia, Pa.  
U. S. A.

Dear Sir:—

Your last cablegram, received on Monday the 7<sup>th</sup> Instant, prepared me for the sudden, and I hope, wise decision I have made this morning.

Your letter of March 30<sup>th</sup> was received about 10 o'clock this morning, and within an hour afterwards I had not only decided to return to Niffer, but had induced a young man of some architectural training, who is travelling through India, Turkey and other countries, to join the expedition until February 1895 without salary. I have agreed on my part to supply all his needs, and bear all his expenses, that are not personal, and such as an expedition might properly be held responsible for, and at length to put him down at the sea coast in Syria without expense to himself on or about the first day of May 1895.

The young man is Joseph A. Meyer a graduate student in the Department of Architecture, Massachusetts Institute of Technology, Boston. He has held a travelling fellowship for two years, and is a candidate for an advanced degree. He is a good worker and I am sure will prove to be a companionable fellow, and of great service to the expedition.

With his help and companionship I am the more reconciled to return this summer to Niffer.

In your last cablegram received on the 7<sup>th</sup> Instant, you guaranteed funds to continue explorations at Niffer on the old basis until February 1895, and in your letter of March 30, received today, you ask if I would be willing to reduce my salary to \$125. a month, and if I can still further reduce the "Commissioner's salary", the "Allowance to Guards", and the "Wages of Servants", etc.

My salary is fixed by a contract to which I have been pretty rigidly held.

I understand that the present contract will expire on the 22<sup>nd</sup> of August 1894. If your Committee are unable to pay me the present salary after August 22<sup>nd</sup> of this year, and if by so doing you can establish the work on a permanent basis, you may adjust my salary for the third year of my service according to your discretion and ability to pay; but permit me to say that a summer at Niffer severely tries physical endurance, notwithstanding the fact that my own health has been equal to all demands upon it. I think no European or American should however attempt to spend a third

summer in succession at Niffer. Though my health is good I feel less vigorous than I did one year ago. I mention this fact simply in support of my opinion; not to complain in any way.

In respect to reducing the "Commissioner's salary", I must reply that it is fixed by statutory law at 20 liras or \$88. per month, and can be reduced only by consent of the appointee to the office of commissioner.

As to reducing the Allowance to the Guards I reply as follows. I do not think any appreciable reduction can be made at present; yet I will make an earnest attempt to reduce not only the Allowance to the Guards, but all unproductive payments to the lowest possible sum.

If your committee will co-operate with me, and authorize me to do so, I would like to tell the responsible sheikhs around Niffer just before my next departure from among them, that my people wish to continue the exploration of the mounds at Niffer, but that they cannot and will not return to Niffer again under the (then) existing conditions of expense, etc., etc., etc.

I should like to propound such a question to the leading chiefs one month before my final departure from Niffer, and at the time of my departure receive from them their final message to report to your committee.

If our relations with the Arabs continue to improve we may confidently expect chiefs and people to desire our people to return to Niffer to dwell among them.

The "Wages of Servants" have not exceeded \$26. per month, although the estimate was put at \$30. per month. These are the wages paid to the trusted and confidential members of the expedition, whose services are worth all they cost. To reduce their wages would be inexpedient and expensive.

I will, however, look well to the expenses, and make reductions as fast and as far as it is possible to do so.

I have expended a considerable sum of money for cylinders, terra cottas, and a few other small objects, which your committee can have for the price paid, if wanted.

I am obliged to take new supplies from Baghdad, the account of which I can only send from Niffer, since I shall leave Baghdad as soon as the supplies are secured.

I hope to resume excavations on or before the first of June.

Baghdad is still surrounded by water, and today the river is rising for the third time, having fallen but little.

Caravans cannot enter the City nor depart from it. To return to Niffer via Hillah we must make the first 15 or 16 miles by boat changing to mule caravan for the last 35 to 38 miles.

I do not apprehend any unusual delay on the journey by reason of the floods.

My next letter will be dated at Niffer.

I have the honor, Sir, to be,  
Your most obedient servant,  
John Henry Haynes.

New York, Nov. 9th, 1894.

Mr. J. H. Haynes,

Care Blockey Holtz (*sic*) & Co., Baghdad, Turkey.

My Dear Mr. Haynes:

Yours of Sept. 8th and Sept. 15th arrived in the same mail with the same postmark, which is the way in which your letters have all arrived lately.

With regard to the points which you have chosen for excavation for tablets, I would say that I am exceedingly interested in the explorations in the neighborhood of the Ziggurat and am desirous of knowing what was the real purpose of the plain to the Northwest of the Ziggurat which you suppose to have been the camping ground for the pilgrim hordes worshipping Baal's shrine.

I can see that in order to continue your work at the Temple you are anxious to conduct the excavations for tablets or other purposes as close to the Temple as possible in order not to divide your force. On the other hand I would say that I think it unwise, if the object is to secure tablets, to open up new trenches in an unknown place instead of continuing the excavations in the region where so many trenches were opened and so much work done in the second year of the excavations and where such enormous numbers of tablets going back to a period over 2000 before Christ, were discovered. Our excavations at VIII conducted in the first year on the western side and toward the middle of that hill, were not on the whole successful or satisfactory. We discovered here a couple of tablets of Ashur-Bani-Pal and the two famous tablets of Ashur-Etil-Ilani and a few other tablets of Assyrian date. Further than this we found a large room with fine bricks of unbaked clay. We also found a considerable amount of pottery, though not as much as in some other places, some graves and a few trinkets. You may, of course, there as anywhere in the mounds of Nippur make a surprising find of tablets, but as far as the indications upon which you have to work were concerned they were distinctly against your attempting this place as they had been against your attempting VII. If we have the time and the money I think it would be well to excavate all Nippur from Beginning to end. I do not think it well for you, with the small force at your disposal, to undertake searching expeditions until you have exhausted those places where we know there are large numbers of tablets. We know there are great quantities of tablets at X, and yet in all the time you have been at Nippur you have not touched a spade to the earth at that point. It seems to me, and I believe to the Committee, desirable that you should at once conduct excavations at X, with a view to securing tablets.

With regard to the determination of the object of the plain to the northwest of the Ziggurat, it is interesting and valuable to run trenches both into that plain itself and also into the surrounding hills. Too much effort, however, should not be spend in this direction, inasmuch as this is after all a side issue. I would suggest, the same thing which I suggested in my last, that a trench not involving very great labor, should be run into the plain itself.

As to the excavations which you are still continuing on the Ziggurat with a small gang of picked men, that seems to me and I think to the Committee also, a wise plan. The work you have done in the exploration of the Ziggurat deserves the very highest commendation and we should like to see the mysteries of that construction explored to the end. At the same time we feel the desirability of obtaining a supply of objects and particularly of inscribed objects, which as experience shows are not to be found upon the Temple Hill. It is on this account that we wish you at present to concentrate your energy chiefly upon an excavation of a tablet site, first X, and then such other site as you may see fit to excavate. We would, however, be glad to have you continue this small work at the Temple and hope that circumstances will allow us ultimately to complete the excavation of the Temple, so that nothing about it may be left unexplored. I note your report of the discovery of the second stage on the northeast side and the second and third stages on the northwest side and hope that very shortly Mr. Meyer will have plans for you, which you can forward, which will show us in a clear manner as he has shown us in other designs the original form of Ur-Gur's Ziggurat.

With reference to the discovery of a fragment of a stamped brick of Dungi in hill VIII, I would say that it is extremely interesting and full of suggestion. In my experience the finding of a stamped brick or even of a brick stamp or an inscription of a very ancient king at Nippur did not of necessity show that there was any construction of his in that immediate neighborhood. So the brick stamps of both Naram-Sin and Sargon were found at the south end of VII, but no constructions of these kings were found there and in fact these objects were in connection with constructions of a much later period. The same was true of a number of bricks of ancient kings which I found on hill I, some of them in tombs and other constructions of the Parthian period. Bricks and the like were carried from one part of the mound to the other. Pieces of the older constructions being reused in the later, and later objects dug out of the ground being appropriated by a generation a thousand years afterwards. With all these facts you are, however, as familiar as I am; all that I meant is that the discovery of the fragment of the Dungi brick at VIII is not in itself an evidence that you are in the ancient stratum or that there were Dungi constructions in VIII. The only other Dungi object which has been found at Nippur to the best of my knowledge is the agate tablet found in a room to the southeast of the temple, which is noted on page 48 of Hilprecht's *Old Babylonian Inscriptions* (*CBS 8598 = BE I/1, 15 and 43*).

With reference to the work which you are doing on XI. At a point numbered 5 on the line of hills XI I conducted a trench in the second year of our work which determined the fact that XI was a wall of unbaked brick. It was almost at the close of the excavations and no satisfactory results beyond this were obtained. I am delighted with the result of your excavations at this point. The discovery of a wall belonging in its lower part to Naram-Sin and in its upper part to Ur-Gur, is in itself a matter of very great importance, when in addition to that this wall throws light upon the walls of the Temple, enabling you to determine more definitely the date of the constructions there, its importance is greatly increased. You have certainly here and on the Temple found the oldest mural or monumental construction ever found in Babylon, and I congratulate you with all my heart upon this "find". Like yourself I was very much perplexed to understand what the brick stamps were for. Now that we have unbaked bricks stamped with the name of Naram-Sin the mystery begins to be solved, only you do not say whether the stamp on the brick is any one of the stamps which we have found. Can you not send us a squeeze of the stamp on one of the unbaked bricks. The juxtaposition of the bricks of Ur-Gur and those of Naram-Sin both in the outer wall and also in

the Temple foundations confirms the idea that has been in my mind for a little while and which I understand that Dr. Hilprecht has also entertained, viz: That Naram-Sin and Ur-Gur lived not far apart. It has hitherto been held that there was a difference of something like a thousand years between these two kings. Hilprecht has been inclined to fill up the gap by pushing Ur-Gur back to an earlier date; I have been inclined to fill it up by bringing him down to a later date, but both of us for various reasons resulting from the explorations at Nippur have been inclined to bring them nearer together than former scholars had done. Your present discoveries tend in the same direction very strongly.

With regard to your proposition in regard to this wall, it is the opinion of the Committee that if it can be done without any great outlay of time and money it is desirable to determine whether any earlier builder worked upon it than Naram-Sin. Much as the Committee would like to know about the construction of the wall throughout it is not the opinion of the Committee that it is desirable to cut the two parallel trenches of which you speak. This is doubtless an excellent way of examining the construction of the wall from top to bottom, but your Committee do not feel that at the present stage of excavation the relative importance of this wall is such as to justify them in the expenditure of time and money necessary for such an examination as this. They would propose that when you have completed your present trench, as you doubtless will have done before this arrives, you should let it stand until the bricks become thoroughly dry and then make an examination of the bricks at certain selected points, provided, that is, that you have not already ascertained to your own satisfaction who the builders of the entire structure were. I am interested in what you say about the large inscribed burned brick found on Hill VIII. Bricks of a size somewhat larger than this were found in the corridors to the southwest of the Temple in the first year, forming a pavement at one point. Unfortunately none of these bricks were preserved, because we were so occupied in the preservation of tablets and vases and the like that it did not occur to us that it was important to preserve objects of another character. I hope that you are taking pains to preserve specimens like this brick of which you speak and other objects in stone and clay which we discarded in the first year. I remember that you were always urging me in the first and second year to throw away things on account of the difficulty which we should have in the transport. Having this recollection in mind I am all the more anxious to impress upon you as a consequence of my later experience and as the result of studying collections of Museums and our own collections, the desirability of preserving practically everything. I have urged upon you in previous letters the careful collection of fragments of glass. I should like to hear from you whether you have made any such collection. I think I told you that such collections were now being made at the large Museums with the result of quite revolutionizing our ideas as to glass. Glass fragments should be picked up from the surface of the mound and carefully preserved when picked out in the excavations. A collection of several thousand pieces ought to be made; similarly a very large collection of potsherds should be made; pieces of stone, flint, stone implements and the like should be gathered. And by the way, the object which I found at the greatest depth was a jade axehead found under the ziggurat, north of the western corner, at the bottom of the deepest trench. It is a beautiful piece. I had hoped that in your deep trenches in the Temple mound, you might have found other stone implements; there has been no mention of anything of the sort.

With regard to the coffins which you mention as found in VIII, two of the forms, B and C, were rare in our finds of the first and second year. The only specimen of B which I recollect without consulting my notes, was found by Muhawis near the surface in a corridor west of the north

corner of the Temple. Examples of coffin C, of the bathtub shape were found on the north side of Hill V. Unfortunately none of any of these specimens was in a condition to be preserved, nor could they be brought out whole. The Committee are very much pleased that you have succeeded in preserving such a number of coffins and commend highly your skill in that work. The finding of the jars at the head of the coffins containing the objects which you mention is interesting. Several jars not containing quite such rich "finds" were unearthed, in connection with the coffins in Hill V, the first year. Sometimes these jars were in the coffins, but in several cases jars containing objects of various sorts were placed at the heads of the coffins. It is to be regretted that you have sent no squeezes or impressions of the seal cylinder and the scarabaei found in these jars. It is of very great importance that these should be studied by experts for the determination of date. In determining the date of cities in the various strata at tel-el-hesy, the scarabaei found were of the first importance. You should be more careful to send impressions of such objects at once; there is then no danger of possible confusion and you yourself can be informed promptly from this side what bearing inscribed objects have upon the determination of the date of your other finds. The Committee wish you to note this point carefully and see that in future the greatest pains are taken to send impressions of such objects if possible with the letter describing your find, if not as soon afterwards as possible. You describe M as a "Carnelian showing a headless human figure in a sitting posture". I do not understand quite what you mean. Do you mean merely that it is a carnelian stone in the shape of a little figure, or is there any evidence about it of the original purposes for which it was used. To judge from Mr. Meyer's drawings the small vase is of very beautiful form and excellent workmanship, as you say. It is to be hoped that you are making a good collection of pottery. If we could date a few such vases by means of seal cylinders, scarabaei, or other objects found in connection with them, it would give us a clue by which to unravel the mazes of Babylonian pottery about which we really at present know nothing. Please observe the greatest care in making your pottery collection to endeavor to note any objects which may throw light on the date on some of the vases. If you have preserved these three large jars and the tear vase and will send on at once impressions of the scarabaei and of the seal cylinder, we may from this side forthwith furnish you a clue. Your experience with the woven fragments is exactly the same as mine was. With regard to the brooch like objects which you determine to be ear-rings, I would say that they are one of the more ornamental but at the same time most common forms of ear rings found by us in the first and second year, sometimes in copper but more frequently in silver. I wish that you could have had a clue to the date of the two beautiful blue glass bottles. Judging from Mr. Meyer's drawing and your description, they are of the same general manufacture as several which I discovered on the Temple Hill. These were in all cases comparatively near the surface, standing loose in the earth, without objects about them to enable us to determine more closely the date. Almost all the better glass bottles which we carried to Constantinople were broken after arrival there by carelessness of the employees of the Museum.

With regard to the drain, the Committee would like very much to obtain several collections of this drain both perforated and unperforated. They scarcely think that it is desirable to transport the whole drain with a view to setting it up in the Museum, but they would like to have a sufficient number of sections both perforated and unperforated removed to make it probable that the Constantinople authorities will grant them enough for study and exhibition. I am interested in what you say about the several donkey loads of tablets from Tello. If they really have found tablets in any number at Tello it is an entirely new thing. My experience with regard to pearls was the same

as yours. Almost no pearls were preserved at all and those had turned into a sort of chalk. In most cases there was merely evidence that a pearl had been the ornament.

Before this reaches you Prof. Hilprecht will have left Constantinople on his way back to America. He writes that he has classified this year nearly 8000 tablets and fragments of Nippur objects. He adds that about 5000 of all the tablets are Cassite or Kassaeen (*sic*). There were, however, as I wrote you in my last some very excellent late tablets of the Persian period and we have in our Museum some tablets of a very early period. Those of the very early period were found chiefly in the Temple hill and at X. Those of the Persian period were found mostly on Hill V. All tablets found on the old camp hill up to the present date are Kossaeen. In conclusion, while commending very highly the work which you have done and congratulating ourselves upon the acquisition of Mr. Meyer, the Committee wish to express to you their disappointment at your apparent failure to make use of Photography. The Committee desire you to present in your next letter after the receipt of this, if possible, a statement of what you have done in the line of photography, inasmuch as it seems to them that the money spent for this purpose has not been properly used. They wish to know whether your photographing outfit is now in condition or not, and they wish to know where the negatives are of all such exposures as you have made.

I regret very much to hear that the heat has been so trying and that you have suffered from prickly heat and trust to hear better accounts in this regard in your next.

Do you mean to insinuate in your letter of the 15th, that Daniel Noorian is in correspondence with Obeid Mullah Kahdim and that he is endeavoring in that correspondence to do an injury to the expedition? I think such a suspicion is both unjust and unfounded, but your letter seems calculated to make such an insinuation. If you have any facts on which to base such a charge I should be very glad to have them, otherwise I think you should be careful not to make such an insinuation. While feeling that Daniel did not act as he should have acted in the past, I think that some of the things that you accused him of, you accused him of without any ground whatsoever, as was shown when you undertook to state the things in form. Now my impression is, though I have not seen Daniel or heard of him except in the most indirect way, that he is honestly and faithfully getting his living and doing his work and supporting and educating his brothers and sisters in Newark and that he has nothing under the sun to do with the expedition and has not bothered his head about it.

Yours very truly,

(Signed) John P. Peters.



1894-11-17. Haynes to Haji Hassan Pasha. UPMAA\_Nippur\_05.02, 117-118. HO

Niffer, 17<sup>th</sup> November, 1894.

To

His Excellency

Haji Hassan Pasha

Governor-general of the Vilayet of Baghdad.

Dear Sir:

In reply to your Excellency's esteemed favor of the fifth instant I am happy to assure your Excellency that I will do all that lies within my power to make comfortable the newly appointed Commissioner to Niffer

I regret to say that my companion, Mr. Meyer, is seriously ill of a complaint that makes it unpleasant for anyone to dwell within the house at the present time.

I hope these unpleasant conditions will soon pass away, and that I shall have the pleasure of putting at the disposal of Mahmoud Effendi a room before the approaching winter shall make it uncomfortable for him to lie under canvas.

With renewed assurances of my high esteem for your Excellency

I have the honor to remain

Your most humble and obedient Servant

John Henry Haynes

Director of Expedition to Niffer

1894-11-27. Peters to Haynes. UPMAA\_Nippur\_02.09, 98-104. TC

302 West 103rd St., New York,

November 27th, 1894.

Mr. J. H. Haynes,

Care Blockey, Hotz & Co., Baghdad, Turkey.

My Dear Mr. Haynes:

Yours of the 22nd and the 29th (*of September*) received yesterday. I wish to express my thanks for the care with which you have lately carried out the plan of writing a weekly letter, even where the letter could not be sent off at once. It has enabled us to obtain a very much better idea of the method and results of your work and has given us an assurance of systematic and diligent exploration. To take up first the letter of 22nd;

I note with interest what you say at the beginning as to the manner in which your explorations were at that time carried forward on the stages and terraces of the ziggurat of Ur Gur. You will have learned from my last to you the wishes of the Committee with reference to the exploration of this ancient and most important work. They desire to have the ziggurat explored from top to bottom, and are anxious to have the whole temple ultimately thoroughly explored, they wish at the same time to have excavations conducted for the purpose of securing tablets or other objects from various parts of the mounds, and particularly they wish to have hill X thoroughly examined as being the spot at which in the past the most numerous and valuable tablets have been found. They therefore approved of your plan of continuing excavations at the temple with a small gang while the main body of the men were engaged in excavations for tablets. This is the method you were pursuing at the date of the first of these letters, September 22nd, and is the method which has met with the approval of the Committee. I do not think that the Committee would have any objection to your increasing the force at work in the excavation of the temple so that perhaps 1/3, or even, possibly if it seemed desirable, 1/2 of your entire force should be at work there, the remainder being employed in excavations for the obtaining of tablets, but I do not think the Committee will approve of that which you speak of in the letter of September 29th, the placing of the whole force again on the excavations on the constructions of the temple. Your letters will go on to the other members of the Committee together with this letter of mine and they will doubtless speak for themselves. I congratulate you heartily on the admirable results you have achieved in the exploration of the ziggurat and wish to see you carry this work to completion. I do not think that it is necessary in order to do this that you should abandon the search for tablets in other directions, more particularly as the Committee has decided to continue the work and continue you in the field, if you feel equal to the physical strain of continuing. Hamdy Bey writes me, by the way, in a letter received last night, that the application for the extension of the firman for two years is in train, and I presume that it has been actually granted ere this. It would be, as you say, a great pity, having unearthed so much of the old temple, to leave it incomplete, certain to be soon utterly destroyed by the elements; ruined for further exploration, therefore, and yet not thoroughly explored by us. I had not quite understood what you had written with regard to the temple in some of your last letters and had not appreciated

that while the lower part of the ziggurat of Ur Gur had been thoroughly explored, the upper portion was still in part unknown. You speak as though you had some indications with reference to approaches, peculiarities of construction etc., but as you do not mention them, it is, of course, impossible for us yet to form any judgement of the necessity of the work that you are doing in laying bare every portion of the upper stages and terraces, nor of the value of your results. We must wait for further letters to justify your action in deciding upon a complete excavation of those parts of the ziggurat. I well understand that the work is enormous and am filled with apprehension when I consider what it means to remove that immense mass of crude brick; the necessity of such work you who are in the field must determine. The criticisms of the Committee at a distance in such a matter are very much more apt to be a hindrance than a help, and the best that a Committee can do under such circumstances is to trust its director, but beg him to put them out of suspense as quickly as possible by such detailed statements as shall convince them that his method of work is the proper one and the work done both necessary and valuable. I wrote you in my last from the Committee their opinion of the work which you were doing in excavating at VIII and VI. It is not necessary to repeat here what was said then, as of course, you had not received that letter before yours of the 22nd and 29th of September were written.

You mention the discovery of a few small fragments of unbaked tablets at VIII. I wish that you had mentioned in what stratum they were found, and told us something of the general character of the tablets. You probably could not at that time have photographed them and certainly could not have furnished anything like a squeeze. It is desirable, where possible, especially where you yourself do not know the date of an object, to send a photograph, squeeze, rubbing or drawing of that object to the Committee as speedily as possible. There are certain marked features of tablets which if once observed will enable you without knowing a character upon those tablets yet to determine at a glance to what period they belong within certain limits. If you could send us promptly descriptions of these tablets, photographs or whatever else may be possible, the information which would be sent back to you would enable you very shortly to determine for yourself what the bearing of a tablet was on the general dating of surrounding objects. We do not, of course, wish you to handle the tablets before they are thoroughly dry and if practicable they should not be packed for some months after finding. As noted before, it was in Hill VIII, on the other side of it, towards the Shatt-en-hil [*sic*], that we found the valuable Assyrian tablets of Ashur-bani-pal and his son Ashur-etil-ilani. Outside of this we found on that hill only a few fragments, if I remember rightly without consulting my memoranda from beginning to end, of unimportant tablets of a late Babylonian period, which were found in the upper strata. The small shrine which you have unearthed in VI is of very great interest. I am not at the present able to make any very definite suggestions with regard to its origin, but this I would say, that the existence of a dome building of this sort is in no way suggestive of Persian origin. The dome is native to Babylonia and ante-dates by very many centuries the Persian conquest. Indeed, while we may not be in a condition yet to make very definite statements as to archaeological precedence in such matters, the presumption certainly is that that method of construction moved from Babylonia towards Persia rather than vice versa. We do not know as much as I hope that we some day shall with regards to the methods of worship of the Persian fire-worshippers of the earlier period and the Parthians who followed the Greeks in possession of the soil of Babylonia. It is easy to refer things to either of these periods, inasmuch as we have few data by means of which to negative such reference. I am not, therefore, prepared to say that this little shrine is not Persian or that it may not have been even Parthian, or for that matter Sassanian (*sic*),

but I am very much inclined to think that it was none of all these, but Babylonian, the orientation of which you speak being distinctly the Babylonian Orientation, the northern point being in this shrine  $12^{\circ}$  E. of N., the same, if my memoranda are correct, as in the great temple. The altar also stands in the same relative position, viz: at the middle of the southeastern side. The bearing of what you say with reference to the type of bricks of which this little shrine was composed must of course be apparent to you. The cruciform construction superimposed upon the ancient ziggurat of the temple of Bel must belong to the same period as this shrine, if your observations with reference to the material of the shrine are accurate. From what you had written about that cruciform structure I had been inclined to suppose that we had then something of late Babylonian date. If so, we should refer this shrine to the same period. I do not understand from your letter whether the objects found near the shrine stand in any necessary connection with it. You do not state exactly where they were found. I should hope that a further examination of the shrine itself or its immediate surroundings might result in giving us some more precise indication of date. I should scarcely think from the size of the shrine and from what we know of the methods of temple worship that a congregation was ever assembled inside the building, and therefore I do not think that the difference in the level of the floor was for the purpose you suggest. I think that you will find that such congregation as there was gathered to the southeast outside of this shrine at the time of sacrifices. You do not state how you know that the building was covered by a dome of bricks laid in lime mortar. The Point is of so much interest that I wish that you would state precisely what is the evidence. Have you found any section of the dome, if so how large a section? Have you found anything to indicate whether or not there was any hole in the centre of this dome? What you say about the ashes on and around the altar is very curious and interesting. It is strange that the upper portion of the altar itself has vanished. I wish that the upper layer of brick had been found in place so that we could have given in detail an exhibit of the method of construction of an altar. Were the bricks at the centre burned or charred. Was there any evidence of a hole in the centre of the upper layer resembling that lime stone mould which has come in so providentially to show what this altar was? You speak of the discovery of a bronze vessel at the southeastern end of mound VI. It was in trenches at this point that one and probably two of the brick stamps of Naram Sin were found, and also here is supposed to have been found the ancient stone list which is published by Hilprecht in the first volume of our inscriptions. This is the only part of hill VI that ever yielded us anything whatsoever. Taking up in order what you say, I do not need to speak about the disposition of the property of the expedition, as the information contained in our last letter to you covered completely that point. I am very glad to hear that you have succeeded so well in the preservation and the preparation for export of coffins, and that you have obtained not merely coffins of one sort but of several. The exhibit of these objects must prove most interesting and valuable. They may not be intrinsically as important as tablets but for Museum purposes and for instruction of the general public they certainly are of the greatest value. I have urged upon you already the collection of everything and consequently the collection of as many of these coffins as possible, and therefore I do not need to answer further what you say in this matter. You are already assured that the Committee are with you. I am inclined to think that if you can restore that altar satisfactorily it might not be amiss to transport that as de Sarsec transported one of the pilasters from Tello. The information contained in yours of the 29th of the transfer of the whole force of laborers to the temple hill has already been commented upon. You note the purchase of a smaller bowl which bears within an inscription in Hebrew.

According to Mr. Meyer's sketch it is different from any inscribed bowl which we have hitherto obtained. If you were using photography I should say that all Hebrew bowls should be photographed, but those photographs should be made with a view of obtaining a legible reproduction of the inscription. One photograph of a bowl will probably not do this; certainly not if the bowl is large. Two or even three photographs are necessary to reproduce legibly the inscription of a bowl. The Committee has already written you with reference to the question of photographing it is, therefore, scarcely necessary to call attention again to the fact that you sent no photographs with your letter.

I presume that we shall shortly hear some account of the matter of photographing and some explanation, I trust a satisfactory one, of your failure to make use of it. You speak of the place where the inscribed stone objects were found in the temple as a large open court. I should be interested to know exactly the evidence you have for this. How far to the southeast from the ziggurat have you conducted your excavations or laid tunnels? The door sockets of Sargon and the numerous inscribed vases and fragments of Ur Mush were found, or at least the greater part of them, were found near the wall before the ziggurat. One of the door sockets were found considerably to the north of the great excavation. The idea of an original open court which lay to the southeast of the ziggurat and probably also to the northeast and southwest, is one that commends itself to me in theory; it is what I should expect to have been the case, but as far as my explorations went the evidence was in favor of a very small court about the ziggurat with buildings covering the rest of the space within the great wall. It was among these buildings that the remains of the vases and the door sockets were found, and not, apparently, in a court. There were found also to the southeast of the ziggurat, but nearer to the ziggurat than the objects of which I have spoken, about a dozen or so of very beautiful clay tablets of an early date which have not yet been photographed. So far as I know there is nothing quite like them in the matter of writing anywhere in the museums of the world. I sank wells, and trenches much larger than wells, to a very low level in various parts of the temple, usually without finding anything whatsoever. I have always been inclined to think that somewhere or other there must be an abundance of inscribed objects in that temple area, but, so far as the experience derived from our trenches went, the only promising place for finding these objects was to the southeast of the ziggurat. It was the discovery of objects there by the sinking of trenches which led to the great excavations. I should be I should be (*sic*) very much pleased to hear what evidence there is as to the existence of a large court on that side of the temple and how far you think that court to have extended. I could not determine satisfactorily the age of the great outer wall. Have you any clue to its date? If it could be done at some time without interfering with other work which is in progress, I should think it might be well to make another attempt at some other part of the temple to dig down to the oldest ruins and see whether you could find any objects there. I would like to know what good reason there is for believing that "the lower strata of the temple enclosure toward the northeast and north of the great ziggurat would yield to the patient explorer larger results both in smaller objects and earlier buildings on the lower levels". Is this a mere theory which you have formed, or have you any facts on which to base it? You have not in your letters stated anything which would justify such a theory. This was my own view originally and I was very much disappointed that as the result of my searches to the northeast and north of the ziggurat, where I carried trenches down to the lowest level, I found absolutely nothing. As I have already stated the only place of promise which was found by the sinking of wells and the running of small deep trenches was the section to the southeast of the ziggurat. I should think it very desirable

if horse-power could be applied in the excavations at Nippur to make arrangements to apply it. In a period of one or two years that ought to save a great deal of money. I did not think that anything of the sort could be done satisfactorily, but I should be very glad to learn that I was mistaken and that the expense of labor at Nippur could be reduced.

You will deserve high commendation if you could develop an ingenuity sufficient to overcome the obstacles. You say that "at different times and in different places, but always above the great platform on which Ur Gur placed the foundations of his temple, have hitherto been found several brick stamps and door sockets of King Sargon". Your levels have not been stated fully in your letters but I had not gathered from those letters that you had carried out the excavations over the area to the southeast to so great a depth in general that this would indicate. I had supposed from your descriptions that the level of the Ur Gur platform was above the level at which the Sargon door sockets were found. Will you kindly give the level of the Ur Gur platform?

Your figures have all been given in feet and inches.

It is certainly a convenience to see them in this shape for ordinary American readers, but I trust that you have noted them first and foremost always in metres and the fraction of metres, and I should be much obliged, if it is not too great a difficulty to give both, to have the measures also in metres and centimetres, etc., for purposes of comparison. All scientific work of the present day of every description in archaeology uses these measures; all our earlier work was done in these measures, and it must, therefore, be a matter of great annoyance if everything has to for purposes of comparison translated from one system into the other. The Committee would be obliged, therefore, if you would see to it that your measures are carefully taken and recorded always in metres, centimetres, etc. If you have the time in your letters to the Committee to state in feet and inches what the various measures are, it of course helps us who are used in the ordinary affairs of life to the use of feet and inches to grasp quickly the general size of excavations, trenches, etc. Please observe, however, the very great importance of the other measures.

I am glad to hear that the health of the camp continues good. Ere now doubtless the temperature with you has become lower and it is a relief to me to know that you are living in a better atmosphere. We must always be anxious about you during the summer months. During the winter we regard the conditions of health as far more favorable, and our anxiety, if it does not altogether disappear, is at least greatly diminished.

Permit me once more to commend the promptness with which your weekly letters are now dispatched, and to extend through you our most hearty thanks for Mr. Meyer for the admirable work which he does in illustration, which enables us to understand as never before the character of the excavations and the character of the objects found.

Yours very truly,

(Signed) John P. Peters.

1894-12-14. Peters to Haynes. UPMAA\_Nippur\_02.10, 38-42. L-109. TO

St. Michael's Church,  
225 West 99th Street,

New York, Dec. 14th 1894

My dear Mr. Haynes

Yours of 6th Oct. to hand, and I am delighted to hear that you are at work at the building below Ur-Gur's ziggurat. I was distressed by the news of Mr. Meyer's illness, and am waiting anxiously for your next.

I have no need to add anything at present to what I have already written you from the Committee respecting their wishes in regard to the excavations, and will therefore confine myself to the question of your finds. The rubbing of a fragment of a small disc of lapis lazuli containing an inscription of Nazi-Maruttash I forwarded at once to Dr. Hilprecht, who reports that it is identical with one of the inscriptions which we already have, and I may add to his report that the inscription to which he refers was found in the chamber next but one east of the opening in the low outer mound line to the southeast of the Temple. As this was found, according to your statement, mixed in with the mud mortar which joined together the large, crude bricks in the eastern corner of the second stage of the ziggurat, it is clear that that structure of large, crude bricks was later than the time of the Cossaeon dynasty, or at least than Nazi-Maruttash of that dynasty. Unfortunately your description does not make it clear whether this structure was the ziggurat which you have identified as Ur-Gur's, or a later construction built over that. If the latter, was it the construction to which the so-called buttresses, giving the cruciform appearance, belong? Please make this point clear by return mail, so that we may follow you the better.

The squeeze of the clay cylinder which you sent proved illegible, as you supposed it would, but Dr. Hilprecht thinks that the characters resemble those of Esarhaddon inscriptions. If his supposition is correct, you have an indication of date for the structure over which it was found, namely the construction of large, crude bricks, that it was earlier than the time of Esarhaddon. Of course this is no more than an indication. In the first place, Hilprecht is not certain of date and only conjectures. In the second place it is always possible that an object may occur out of its stratum. This cylinder, for instance, might have been preserved in some manner, and been handed down intact to a later period, to go to pieces at last with the material of a much later age. The indications, however, are, as I have said, that the construction of large, crude bricks belonged to a period earlier than Esarhaddon. Now, as you have not made clear what this construction of large crude bricks is, although I imagine you must mean the construction to which the so-called buttresses belong, it is impossible for us here to appreciate correctly the value of this indication. Esarhaddon, you will observe, is three quarters of a century earlier than the late Babylonian period, to which you are inclined to refer the buttresses.

With regard to the other objects found in this locality, that is about or above the ziggurat construction, your description of locality is not sufficiently exact to make clear to my mind their relation to the construction. The golden plated copper nail may possibly have been a mere ex voto, thrust into the wall in the same way in which stone or pottery phalli were thrust in. On the other hand it may indicate a structure standing on the ziggurat in which wood was used. According to Herodotos' description of the temple of Bel at Babylon there was on top of the ziggurat a small shrine, the holy of holies of the temple, with walls and a roof. In this shrine gold was lavishly used. This may well have belonged to such a building as that shrine, where the wood and also the nails were covered over with gold leaf, after the manner of ornamentation so common in oriental shrines and temples of old and to this day. "Near the northern corner in the second stage", is a very vague statement, as is also the statement "on the northwest side and in the second stage", where you say a gold bead was found. The positions of the "fragment of green glazed pottery" and the fragment of red pottery which "seems to show a decided Greek influence" are not stated at all, excepting that it is said that the former was not on the surface. I wish to call your attention to the fact that we found a very fine piece of pottery which we supposed to be of the Seleucian period, made under the influence of and in imitation of Greek art, in the plateau to the southeast of the ziggurat about the middle of the same, where the great trench now is, about fifteen feet below the surface, and in the neighborhood of objects which dated back to about fourteen hundred B. C. We also found a number of little heads of Greek art, or made under the influence of Greek art, and some of a fairly good character, at various places on the temple hill. When and how did they come there? I am beginning to suspect that we must place the first influences of Greek art in Babylonia a little earlier than has generally been supposed. In connection with this let me call your attention to the fact that we found proof of commercial relations direct or indirect between Nippur and the island of Euboea in the fourteenth pre-Christian century in the objects discovered in that chamber, already referred to, in the line of mounds to the southeast of the temple. Please give us by return mail precise and clear statements as to the position and relation of these objects.

Your discovery of a part of a brickstamp of King Sargon below the brick platform on which Ur-Gur built is interesting. I have already asked for proof of your statement that all brickstamps and door-sockets of Sargon previously found had been found above the platform, and therefore do not need to go into that matter again here. The discovery of the water vents at that low level, fixing definitely their very early date is exceedingly interesting. I am looking forward with the greatest interest to your next letter.

Long ere this reaches you you will have received the cable to continue your work, and also a letter to that effect; also a letter about securing a continuance of Mr. Meyer's services; also a memorandum, drawn up by Prof. Hilprecht, regarding the form and nature of a brief monthly report to Hamdy Bey, which I had supposed your commissioner was sending, and which he certainly ought to have been sending; also the statement that the Museum has been even more liberal with us than before, but that nothing is to be said about this outside of yourself and Mr. Meyer, who need it for your encouragement and instruction.



The two drawings of the pottery were interesting, although I can not say that there was anything new. The group of pottery from the bath tub shaped coffin in mound VIII should be kept carefully together as an exhibit.

I am sorry to see still no evidence of the use of photography, but suppose that we shall shortly receive your report on that matter in accordance with the instructions of the committee.

Congratulating you on what you have done, and on the decision to continue you in the field, and begging that you will express to Mr. Meyer my sincere regret at hearing of his illness, I am

Yours very truly

*signed* John P. Peters.

1895-01-22. Peters to Haynes. UPMAA\_Nippur\_02.11, 29-30. L-1320. TC

ST. MICHAEL'S CHURCH.  
225 W. 99th St.

New York, January 22, 1895

Mr. J. H. Haynes,  
c/o Blockey, Hotz & Co.,  
Baghdad, Turkey.

My Dear Mr. Haynes:

Yours of November 10th arrived yesterday. Dr. Pepper had received some ten days sooner a letter from Dr. Sundberg, from Baghdad, dated December 5th, through which we were informed of Mr. Meyer's safe arrival at Baghdad, and his condition, in Dr. Sundberg's judgment; and Dr. Sundberg's intention to depart with him for Europe forthwith.

I read your letter with the greatest sympathy for the serious trouble and distress of mind through which you have passed alone, so far from all assistance, under the ordinarily trying conditions in which you live, to have had upon your mind the burden of a sick comrad, possibly dying, certainly in a nervous condition of mind which was calculated to upset and distress the most phlegmatic - - I do not wonder that you are worn down, desponded, and even morbid.

I am writing by this same mail to Philadelphia, advising that the Committee arrange for you an immediate furlough, if that can be called immediate, news of which will reach you so long hence. I do not feel like writing to you much about business or work, for all my thought at the present moment is for your condition, and what can be done to help you to regain tone.

Do not have any idea in your mind that any one has theories of any very pronounced character with regard to the details of the temple construction, or that you must labor to bring very positive proof to prevent the formation of unnatural hypotheses. Mr. Meyer's drawings are so effective there is no necessity of going to expense to secure a photograph where he has already drawn the object. It is desirable to photograph everything that can be photographed, but I would not spend money or labor in removing any large mass of earth for the sake of securing photographs of that which Mr. Meyer has already drawn. If the earth must be removed for other purposes, well and good, but do not remove it solely for the purpose of photography. There are no foes to be convinced.

I am rejoiced to hear of the discovery of the unbaked tablets to the northwest of the Ziggurat, near its western corner. The general position at which you found them is made clear by your description. I had no clue, from objects found, to the date of that stratum, in the work which I did there. You have a terminus a quo in that they were found about the Ur-Gur platform and therefore must be later than the time of Ur-Gur, but you do not indicate the discovery of anything that would

give a terminus ad quem. That the tablets will do, of course, when they are taken out. I note that you are packing the tablets at once, after discovery. I think from experience with the tablets which were packed in various ways, that that is a mistake. The tablets, even when of the hardest burned clay should be kept out and so far separate that the air can circulate freely about them for the purpose of drying them. Before packing them they should be thoroughly dried, and quite a long time may well elapse before they are put in their boxes. I know that it is not always the easiest thing to manage this. With regard to packing, one thing more: Prof. Hilprecht informs me that there was no mark of the situation in which things were found in the boxes unpacked in Constantinople, except the numbering. It would be desirable to forward a catalogue, or your note book, or something to us at the same time that the boxes go forward to Constantinople, so that when they are opened, and before opportunity of confusion arises, they may be examined with a view to the consideration of the various objects in connection with their locality. A slip of paper with such a collection as this, saying that it was found at such and such a place at such and such a depth, would be of great value and would insure in the unpacking the handling of this collection as a whole, and keeping it together. Possibly after this letter arrives you may be in a condition to photograph some of these tablets and send them on. The find of tablets on the temple hill, and particularly so close to the Ziggurat, is of such importance that we should endeavor to ascertain speedily everything that it is possible to ascertain regarding it. Therefore, photograph some of these, if you can, and send back the photographs telling what they are.

I will not go into business any further, and feel almost as though I should not have said this. I wish to congratulate you on the courage and persistence with which you have remained at your post, and to assure you of my hearty sympathy and warm friendship for you, and of all of us here on this side; that you have no foes; none but friends; that all trust you, and that all are anxious for your welfare, and exceedingly distressed and alarmed about you at the present moment. May God bless and preserve you from all sickness and danger.

Yours sincerely,  
*(no signature)*

1895-03-23. Haynes, *Description of Antiquities in their Cases*. UPMAA\_Nippur\_04.02, 97-100 (HO) and HSN 181(TC), the latter with Hilprecht's annotations. Enclosed with report to Peters of the above date. Cf. 1894-00-00, Box labels; Hilprecht 1897-09-00.

Description of Antiquities in their Cases.

+	Case N <sup>o</sup>	<u>1.</u>	contains	Pottery, 1 Sargon brickstamp, Bronz Nails, 2 Water Vents, Cones, Discs, Rings, etc. of clay.
+	"	"	"	Pottery, Cylinders, Scarabs. Bronz Rings, Bracelets + Pendants, Stone Beads, etc.
+	"	"	"	Pottery – Bowls, Vases, Pitchers + 1 cover for vase.
+	"	"	"	Pottery – miscellaneous – 18 pieces –
+	"	"	"	Pottery - " - 14 " - 1 enameled vase
+	"	"	"	Pottery, 2 Leaves + 1 Tube Gold, 1 Gem, 2 Strings Beads, 2 broken models of Boats
+	"	"	"	Pottery, 1 Bronz smelting Pot, 1 Bronz Bowl.
+	"	"	"	Cover of Sarcophagus in several Pieces. 2 Fragments of Green glazed Coffin.
+	"	"	"	Fragments of Green glazed Coffins showing female figures.
+	"	"	"	Pottery, 4 Glass Bottles, Fragments Bottles, Samples of Mortar from Ziggurat.
—	"	"	"	Purchased Articles, 1 Gold Bead, 1 Gold headed Nail, 16 Stone Hammer Heads, etc.
#	"	"	"	Tablets from Ziggurat for which See next Sheet

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	Description of Case	Sound Tablets.	Imperfect Tablets.	Fragmentary Tablets.	Whole Discs.	Broken Discs.	Total
Case N <sup>o</sup> 12 contains	Regular size	6		104			110
" " 13 "	" "			143			143
" " 14 "	" "			209			209
" " 15 "	" "			250			250
" " 16 "	" "			177			177
" " 17 "	" "			208			208
" " 18 "	" "			200			200
" " 19 "	" "			138			138
" " 20 "	" "			240			240
" " 21 "	" "	44		55			99
" " 22 "	" "			20*			20*
" " 23 "	" "			140			140
" " 24 "	Double size						
" " 25 "	Regular size			124			124
" " 26 "	" "	11	4	70	2		87
" " 27 "	" "			207			207
" " 28 "	" "			118			118
" " 29 "	" "	58	41				99
" " 30 "	" "			104			104
" " 31 "	" "			87			87
" " 32 "	" "	473	10				483
" " 33 "	" "			84			84
" " 34 "	" "			115			115
" " 35 "	" "			81			81
" " 36 "	" "			191			191
Total		592	55	3065	2		3714

*\*Haynes clearly wrote 20 in both places. Hilprecht corrected both to 200 in his copy of the list HSN 181.*



	Description of Case.	Sound Tablets.	Imperfect Tablets.	Fragmentary Tablets.	Whole Discs.	Broken Discs.	Total
	Case N° 37 contains	Regular size		153			153
—	" " 38 "	" "		109			109
	" " 39 "	" "		86			86
	" " 40 "	" "		123			123
—	" " 41 "	" "		97			97
—	" " 42 "	" "		104			104
—	" " 43 "	" "		115			115
+	" " 44 "	" "	2	25	33	6	66
?	" " 45 "	" "	10	58 Charms			68
—	" " 46 "	" "		91			91
—	" " 47 "	" "		100			100
—	" " 48 "	" "		97			97
—	" " 49 "	" "		60			60
—	" " 50 "	" "		141			141
+	" " 51 "	" "	3 jar covers	142			142
	" " 52 "	" "		196			196
H +	" " 53 "	" "	106	40	2		148
H +	" " 54 "	" "	145	34			179
+	" " 55 "	" "	1 grosser jar cover	66			66
<u>must have this!</u> +	×" " 56 "	Double size	75	63	4 Prisms		142
H +	" " 57 "	" "	17	126			143
—	×" " 58 "	" "	266	68			334
—	" " 59 "	" "	65	296			361
	" " 60 "	Regular size		87			87
	58 inscribed Charms, 4 Prisms		1278	80	5492	10	6922

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	Description of Case.	Sound Tablets.	Imperfect Tablets.	Fragmentary Tablets.	Whole Discs.	Broken Discs.	Total
—	Case N <sup>o</sup> 61 contains	Regular size		93			93
—	" " 62 "	" "		133			133
—	" " 63 "	" "		63			63
—	" " 64 "	" "		161			161
—	" " 65 "	" "		142			142
—	" " 66 "	" "		130			130
—	" " 67 "	" "		111			111
—	" " 68 "	" "		107			107
—	" " 69 "	" "		135			135
—	" " 70 "	" "		123			123
—	" " 71 "	" "		105			105
o—	" " 72 "	" "		142			142
o—	" " 73 "	" "		119			119
o—	" " 74 "	" "		128			128
H +	" " 75 "	" "		84			84
H +	" " 76 "	" "	22	205			227
H +	×" " 77 "	" "	172	62			234
H +	" " 78 "	" "	47	287			334
H +	×" " 79 "	" "		223	87		310
—W	×" " 80 "	" "	17	180			197
	58 Charms, 4 Prisms		1536	303	8089	10	10000





Double  
Match  
Box

Articles from Grave 339  
2 Bronz Rings with finger bone  
1 Scarab  
2 Simple Cylinders  
1 Seal  
Several Stone Beads

Match  
Box

2 Cylinders  
2 Seals  
1 Bronz Cross  
1 Gold Ear Ring  
1 Flat square cornered Bead (nice)

Match  
Box

1 Seal Impression in clay  
2 Silver Beads  
1 Disc from Ur Gur level  
Tiny fragment of inscribed Lapis Lazuli Disc

Pkge

15 ellipsoidal Weights & Frags.  
1 Small Duck Weight

Pkge

4 ellipsoidal Weights  
1 Frag. of inscribed Lapis Lazuli Disc

Pkge

2 Pieces Agate

Pkge

9 ellipsoidal Weights

Large  
Square  
Tin

Tapioca  
Tin

Pkge { 9 Bronz Coins  
9 Silver Beads  
1 Talisman

Pkge { 1 Clay Sphere  
1 Disc  
Several Whorls


Fragmentary Tablet reported Nov. 16 (CBS 13150)

1 Tablet " " 30 (CBS 13147)

2 " " Dec 14. ("CBS 13145" and "13146")

Large Metal Pin with head of Lapis Lazuli

1 Ivory Stiletto

1 Iron thus  1 Iron Finger Ring

1 Lamp. 2 Grinding Stones. 1 Large Needle.  
3 Pkges Stone & Paste Beads.

1 Head of Statuette

~~1 Mask of enamelled clay~~

Terra Cotta Steles of May 18. (*HS 68 = TMH 4, 68; CBS 15399 and 15400 = PBS 16, 207, 208*)

Sow & Pigs (*CBS 16679 = PBS 16, 309*)

Lion's Head

Spear Heads etc

Black Stone Tablet (*HS 1963 = BE I/2, 123*)

Clay Tablet over Jewish Grave May 11 (*CBS 10059*)

Frag. of Clay Tablet. Crude brick 9×6×3 *ill.*

2 handless Brickstamps of Sargon

6 Statuettes

1 Mould for Statuettes

1 Marble Crucible Alu Sharshid(?)

4 bevelled triangles (preUr Gur)

Bone Implement

1896-03-12. Lists of Antiquities. UPMAA\_12.02, 13-19. HC-47. HO

This document is also available in HSN 179 and 180, the latter with Hilprecht's penciled annotations. This edition includes these and is otherwise a conflated version of the three manuscripts. They vary slightly.

See also Haynes, report 1896-03-12; Hilprecht 1897-09-00.

Lists etc. of Antiquities packed in Boxes at Hillah March 12<sup>th</sup> 1896 (written by Haynes, the rest by an unknown hand)

A	Description Of Case:-	Sound Tablets:-	Imperfect Tablets:-	Fragmentary Tablets:-	Whole Discs:-	Broken discs:-	Total:-
Reported in letter of March 23 <sup>rd</sup> '95		1536	303	8089	10		10,000
Case No. 81 contains	Reg. size			133			133
" " 82 "	" "			169			169
" " 83 "	" "			158			158
/ " " 84 "	" "	64		120			184
" " 85 "	" "			106			106
" " 86 "	" "			128			128
/ " " 87 "	" "	46	24	101			171
/ " " 88 "	" "	5		144			149
" " 89 "	" "			198			198
" " 90 "	" "			126			126
" " 91 "	" "			104	6		110
" " 92 "	" "			179			179
/ " " 93 "	" "	71		38			109
/ " " 94 "	" "	38		161			199
" " 95 "	" "			120			120
" " 113 "	" "			151			151
" " 114 "	" "			140			140
" " 115 "	" "			224			224
" " 116 "	" "			157			157
/ " " 121 "	" "	24		48			72
" " 122 "	" "			80			80
" " 131 "	" "			42			42


**B.**

Size

Contents

Case 96	Double	Beads : 26 cyl <sup>s</sup> : Bronze Bracelets : Bone & Bronze Rings : bits of gold &c.
97	Reg.	5 Bronze vessels, & a few frag <sup>s</sup> of do.
N 98	"	63 Terracotta figurines : 73 Tripods : 2 Brick-stamps of Sargon
99	Double	85 (circa) cards mounted articles: inscb <sup>d</sup> Vase Deity in niche : 2 seal cyl <sup>s</sup> {Lett. Feb. 1 <sup>st</sup> '96} : 3 Tear Vases : 1 thin glass bottle : 2 strings of Discs : a few small art <sup>s</sup> of pottery {on top}.
Y.		
Y. { 100	"	10 Bronze vessels {in small box} : 2 flattened enameled Vases : 2 Brick Stamps of Sargon : 3 or 4 frag <sup>s</sup> of Tablets 1 " " Naram-Sin : Clay impressions of Seals : 25 or 30 packages of grave-clothes, &c.
No		
Y. 101	"	Boundary Stone : layer of whorls.
no { 102	"	17 Watercocks
103	"	25 do.
Y 104	"	17 do.
No { 105	"	16 parcels broken pottery.
106	"	16 do. do.
107	"	19 do. do.
no { 108	"	1 impf. Brick Sargon : 1 green-edged Brick inscb <sup>d</sup> of Mili-Shihū : sev. frag <sup>s</sup> green-edged Bricks.
N { 109	"	16 packages broken glass
110	"	14 do do.
Y. 111	"	14 do do.
Y 112	"	{Private} purchased articles: Tablets : Alab. Vase : 1 Cup : 6 Hebrew Bowls : 1 Boat : 1 green bottle enam <sup>ld</sup> etc. etc.

C.

Case No. 117	Size.	Contents.
Yes	Double	<p>3 marble vases : 4 glass bottles within : Stone Tablet {Letter (<i>blank</i>)            Stele {Letter July 13<sup>th</sup> 1895} : 3 Baby<sup>m</sup> weights on card : Duck weight : Lamb            weight : 2 Jades, 4 ft below Naram-Sin level : Vase fragments in packages : 1            double tin {Jewelry {Letter Dec. 7<sup>th</sup> 1895} : 1 clay charm inscribed : 1 frag.            paste cylinder : miscellanies from crude brick 13×13×9};            1 Tin – 33 cylinders, 5 scarabs, 3 seals            1 Tin – 2 cylinders, 6 silver Rings, gold bead, silver bead, 4 strings stone beads :            {Letter Jan 4. 1896}.            1 Tin – 2 gold Ear rings, gold bead, Stone beads, Bronze Ring, inscribed Disc,            insc<sup>d</sup> clay charm from grave 188, insc<sup>d</sup> Disc with 3 wedges {Lett. Sept. 21<sup>st</sup>            ‘95}, 2 Rude Scarabs &amp;c. &amp;c.            Double match-box – Articles from grave 339, 2 Bronze Rings with finger-bone,            1 scarab, 2 simple cylinders, Seal, Stone beads;            Match-box – 2 cylinders, 2 seals, Bronze cross, gold Ear ring, 1 flat square bead            {nice}            Match-box – Clay {seal}impression, 2 silver beads, 1 Disc from Ur-Gur level,            tiny frag. insc. lap. laz. Disc;            Package – 15 ellipsoidal weights, &amp; frag<sup>s</sup>, 1 small Duck weight;                Do. – 4 do. do. , 1 frag. insc. lap. laz. Disc;                Do. – 2 pieces agate;                Do. – 9 ellipsoidal weights;            Large sq<sup>te</sup> Package {9 Bronze Coins, 9 silver beads, 1 Talisman}            Tin Do. {1 clay sphere, 1 Disc, whorls};                Frag. Tablet {reported Nov. 16} : Large metal pin lap. laz. head;                1 Tablet { " " 30} : 1 Ivory stiletto : 1 lamp                2 " { " Dec. 14} : 1 Iron thus  : Iron Ring;                2 grinding stones : 1 large needle, 3 pckges stone &amp; paste Beads :            1 Head of statuette : Terracotta steles of May 18 : Sow &amp; pigs : Lion’s Head :            Spear-heads &amp;c : Black stone Tablet : Clay Tablet over Jewish grave {May 11}            : Frag. of Clay Tablet crude brick {9×6×3 in} : 2 handleless Brick-stamps of            Sargon : 6 statuettes : 1 mould for statuettes : 1 marble crucible Alu-            usharshid{?} : 4 bevelled Triangles (pre Ur Gur) : Bone implement :</p>

D.



Size

Contents

Case No.	Size	Contents
no { 118	Double	Pottery – 2 delicate drinking cups;
no { 119	"	" – 1 nice vase, several lamps phalli on top.
yes { 120	"	37 cards of mounted objects: arrow-heads, bits of metal from low levels : 1 copper- nail {11 ft. below N. S. level} : Impression of seal cyl. {Jan 25 <sup>th</sup> } : 3 stone vases : 2 mace-heads : 2 perforated covers : frag. of clay cyl. : 2 incomplete figurines : 2 rude cyl <sup>drs</sup> : 1 Tablet : 1 insc <sup>d</sup> charm : 1 inscb <sup>d</sup> sphere : Lap. Laz. frag. : Goldsmith's forge : model of boat : tiny spoon : 3 vases : 6 Bowls (1 enameled) : 1 frag. Brick inscb <sup>d</sup> with stylus : 3 phalli : 2 fragments vases : Remnants of wood from low level.
yes { 123	Regular	3 skulls :
{ 124	"	3 do.
{ 125	"	3 do.
no { 126	"	3 do.
{ 127	"	3 do.
{ 128	"	Bones from various graves, and a few beads :
Y. 129	Double	1 water-cock : 1 impf. Bronze vessel : parcel red pottery : 1 parcel black-striped pottery : (nice) enamelled vases : Vases from low levels on Temple Hill :
yes 130	"	1 inscb <sup>d</sup> stone sacrificial list : 1 vase-cover in 3 pieces : 1 Mortar and Pestle {Nar. Sin level} : 10 <sup>?</sup> hollow-headed Phalli : 2 fragments of perforated covers.


E.

— : Contents: —

Case No.	1	1 gray ribbed sarcophagus :	containing 7 vases.
	2	1 blue enamelled " {female figs.} :	" 12 " .
	3	1 plain gray " :	" 10 " .
	4	1 " " " :	" 12 " .
Yes	5	1 blue enamelled " {human head <sup>d</sup> . bulls} broken :	" 4 jars, 3 burial urns, 13 tall vases;
	6	1 " " " {fem. fig <sup>s</sup> } :	containing 3 " " , 14 " " ;
yes	7	1 white " {do. do. } :	" 18 vases;
	8	1 plain gray " :	" 12 do ;
	9	1 " " " {broken at foot} :	" 12 do ;
	10	1 gray ribbed " { " badly} :	" 12 do ;
	11	1 " " " :	" 15 do ;
	12	1 blue " enam. <sup>ld</sup> " {badly broken} :	" several do;
	13	1 " " " " { do. do } :	" " do;
	14	1 gray " " {at head do } :	" " do & top of vert <sup>l</sup> drain
	15	1 Jewish Casket {cracked} :	" 52 Bowls;
	16	1 " " " :	" 32 Vases;
	17	1 " " " :	" 23 do ;
	18	1 " " " :	" 42 pieces pottery;
	19	1 " " " :	" 73 do. do. ;
	20	1 Bath tub coffin {broken} :	" Jewish coffin-lid (2 pieces) : water-spout;
	21	1 do " " " { " } :	" " " " ( " ) : N.S. ½Brick;
	22	1 " " " " :	" 11 Vases : 2 creased Bricks;
	23	1 " " " " { " } :	" several Vases.
	24	1 Box Coffin : 2 infant's coffins :	1 Urn, 4 Vases, 6 Bowls, 25 vases, 4 pieces (in Urn)
	25	1 Bath-tub coff. {round bottom} :	1 large Jar {7 vases}, 40 Bowls, 7 vase supports, 8 Bricks {8×3¾×2¾}, 1 inscb <sup>d</sup> brick  , 1 uninscb <sup>d</sup> do.  .

# F

## Contents.

Case No. 26	Bath-tub coffin : containing perforated Drain-Tile, 40 shallow Bowls, 3 Vases, 3 large vases {20,16 & 15 small vases respctvly}, 3 Ismi-Dagon Bricks.
" " 27	" " " : " 3 large Jars {17,15×7 vases}, 8 vases, 4 Bowls :
" " 28	Box coffin – 1 r.b. child's coffin : 2 urns {7 & 5 vases} : 2 Jars {10 & 5 vases} : 7 vases (small) : 6 Bowls :
" " 29	" " – water-spout & 13 vases :
" " 30	Bath-tub coffin youth's – 13 vases, 8 vase supports, Top of vert. Drain filled with pottery, 8 creased (finger) Bricks :
" " 31	Large Cauldron (burial) : – 2 drain Tiles, 2 creased Bricks, 2 16 in. paving Bricks, 5 inscb <sup>d</sup> Bricks {Cassite}, 4 do. thus:  :
" " 32	Large Vase – 40 <sup>?</sup> vases (some enam <sup>d</sup> ), 5 primitive Bricks;
" " 33	Burial Vase {Sargon level} contains 11 smaller vases : Top of vert drain, 13 vases inside :



G.

Contents.

Case No. 34.	Small cases Nos. 1 – 4.
35	" " " 5 – 8.
36	" " " 9 – 13.
37	" " " 14 – 21.
38	" " " 22 – 28.
39	" " " 29 – 36.
40	" " " 37 – 44.
41	" " " 45 – 52.
42	" " " 53 – 57, and 131.
43	" " " 58 – 63.
44	" " " 64 – 71.
45	" " " 72 – 79.
46	" " " 80 – 87.
47	" " " 88 – 95.
48	" " " 96 – 100, and 121.
49	" " " 101 – 104.
50	" " " 105 – 108.
51	" " " 109 – 112.
52	" " " 113 – 118.
53	" " " 119 – 125.
54	" " " 126 – 130.
55	" " " 132 {Duck weight, beveled inscb <sup>d</sup> stone} :
	133 {Frag. of Statue} :
yes	134 {unfinished vase of Alu-usharshid, Black Mortar Sargon level, marble mortar, elephant's bones :
56	1 uninscb <sup>d</sup> Brick 20 ins. sq. ; 5 Sargon and Naram Sin Bricks (inscb <sup>d</sup> )

### Mound I

This is the large Mound lying West of the Shatt-en-Nil on whose summit the first party, led by Dr. Peters placed its camp in the early months of the year 1889.

Four years later the writer sunk a shaft just outside the limits of this camp on the site of one of the native workmen's huts. The shaft was carried down through 97 $\frac{2}{3}$  feet of accumulated debris to the undisturbed soil of the plain, upon which the earliest occupants have left to us the first traces of their occupancy in the form of scattered (wood) ashes and numerous ash-pits, which still mark the places where the *ill.* campfires were built upon the level face of the plain by the first semi-migratory dwellers on this spot.

These earliest traces of man are doubtless the work of herdsmen, who for many generations may have dwelt in tents or in some kind of perishable hut, which has left no trace of itself to us, as the Arab shepherds, herdsmen, and husbandmen of Babylonia continue to live in tents and huts to this day.

Both on this mound and also on the Temple Hill the earliest vestiges of civilized man are found in wood ashes which first occur on the level of the original plain. In short wherever we have descended to the undisturbed soil the same numerous traces of fire everywhere abound. On the level of the plain ashes were so abundant and the intermixed soil is comparatively so little that the observer is forced to conclude that for a long time from the beginning of its occupancy, the ancient city of Nippur contained no substantial building of any kind, but that its first citizens lived an out-of-door life. Perhaps they sought shelter from storm and midday heat under a tent of goats hair or a lightly constructed hut of some kind, but bricks were not yet made and stone was not to be found and hence no durable building of any kind was constructed. It is probable that the herdsmen gathered their flocks about their tents at night and built evening fires among them to warm themselves in winter, and either kill or drive away the insects of summer as the Arab still does; while their kitchen fires would more naturally be made under the shelter of tent or booth. It is probable that the first cooking vessels were wide mouthed pots of burned clay, and that they rested on the two sides of a narrow trench in which the fire was made under the vessel. The native cooks accompanying modern travellers in Babylonia build their kitchen fires in precisely the same manner and for this purpose carry with them a small pick with a wide prong resembling a small adz. With a few strokes a narrow trench is dug, one or more cooking vessels placed upon it and fire made underneath of brushwood, where it can be obtained, or of camel dung where no other fuel is at hand. That hardwood obtainable for fuel in the beginning of Nippur's history is clearly attested by the abundance of hardwood ashes still containing bits of charcoal and unconsumed brands charred and still further oxydized.

In the dissection of Mound I if we could begin at the bottom and one by one remove the separate layers or strata of earth and debris in the same order in which they were deposited by successive generations of men, we should find that the first deposits of any kind which could be

traced to mankind is represented by a broken layer of blackwood ashes unevenly scattered over the surface of the plain by the first occupants of the soil.

In the places where the fires burned the fire pit, or as we may now call it the ash-pit is clearly shown and the ashes are often three or more inches in depth, while in other places, the accumulation is slight and in places disappears altogether. These are the earliest traces of mankind and they mark the level of the alluvial plain where the first inhabitants grazed their flocks and made their primitive abodes. But, you ask, how were the mounds made? Upon and above this deposit of ashes great mounds of earth and debris, aggregating nearly 100 ft. in height have accumulated by the gradual process of growth and decay, which, aside from conquests and conflagrations, mark the continuous destruction and repeated rebuilding of the public and private buildings of the city. The earliest buildings were for the greater part built with thick walls of sun dried bricks; the flat roofs were covered with from one to two feet of earth. Unless carefully watched the heavy rains of winter will cause water to percolate through the roof of earth and sooner or later the rafters (or more properly the joists) of palm wood weakened by moisture will break and thus precipitate the earth on the roof into the building. If the ruin is then exposed to severe wintry rains, the thick walls of sun dried brick dissolve and wear away with great rapidity.

In the winter of 1894 great destruction of property resulted from a severe storm of three days in Hillah, Baghdad, and other cities of Babylonia. Several streets in the city of Hillah were temporarily blocked by the debris from the neglected houses, the walls of which had frequently fallen into the street, making traffic impossible. Every severe storm, if long continued, in Baghdad, and other modern cities in Babylonia, cause the partial or complete destruction of a score or more of houses. Occasionally a life is lost and household goods sometimes share the destruction of the fallen building; but generally little harm is caused to either person or property beyond the destruction to the roof and walls of the dwelling itself.

The unburned brick walls of private buildings were about four feet thick, while the walls of public buildings were often eight or ten feet in thickness. When walls of such thickness were levelled by wintry storms the surrounding spaces of streets, court yards and roofless rooms were filled to a considerable depth. The rubbish was never carried away but simply spread about or levelled and upon the elevated foundation a new building replaced the older one. This process was often repeated and gradually the foundations of the houses were raised higher and higher as centuries wore away. Conflagrations and sieges sometimes caused the destruction of an entire city and the consequent rebuilding raised the whole city level several feet at a single step. In rare instances two mounds of earth were raised by the people for the king's palace that his royal and sacred person might be sufficiently elevated above the plain to be beyond the reach of the mosquitoes and other smaller but no less troublesome insects. Such are the chief causes for the growth of an ancient mound in Babylonia. Every city in the alluvial soil of Babylonia has left behind it a mound to mark its site, and every mound marks the site of some great structure, or points the traveller to the ancient and deserted site of a city or village.

In the dissection of Mound number I or of any other mound if we could reverse the process, and beginning at the bottom remove each layer and stratum of earth and debris in the order in which they were severally deposited we should find that the first and earliest traces of

civilization are the numerous fire-pits and the abundant wood-ashes that underlie all parts of the two principal mounds wherever we have descended to the level of the original plain.

Upon this lowest stratum of black ashes, from one to three inches in thickness, lie intermixed several strata of soil debris and hard wood ashes in alternate layer with a comparatively scant supply of potsherds scattered through the mass to the depth of about three feet.

This lowest three feet of accumulations therefore consists of several fine thin and well defined strata of ashes, soil and debris, which appears to represent a comparatively long time in process of accumulation. It seems to make an epoch in the history of the mound and to represent many generations of men who lived the life of simple herdsmen and husbandmen and made little use of pottery. The next superincumbent stratum consists of two and three inches of potsherds of all sizes and shapes mingled with a relatively small proportion of soil. This marks the beginning of the abundant use of pottery at Nippur, which is doubtless one of the oldest cities of the world. These potsherds are of excellent quality and are found in the greatest profusion. They attest the beginning of a great pottery making epoch which still hold sway in the land of its birth. No bricks had yet been made, nor had any substantial building of any kind yet been built. There is yet not (*sic*) trace of a wall or similar structure, while fragments of pottery everywhere abound and in great profusion.

Continuing our upward examination of the successive strata we find clearly defined layers of earth, ashes, and potsherds intermingled in narrow and wider bands of color – all representing more or less time in deposit – layer upon layer for a total height of more than thirty feet to the pavement of Sargon of Agade c. B.C. 3800.

At the height of three, four and five feet above the lowest stratum numerous bits of fine clay, which had been worked in the hand, were found in abundance showing that in the very early period, to which they belong and no one can even approximately date, men had begun to work clay in the hand. At the height of about seven feet from the bottom in Temple Hill was found a fragment of unbaked clay bearing a part of the impression of a seal cylinder incised with both human and animal forms.

Not yet had there been found any trace or hint of brick, tablet or inscription.

In the Temple Hill also within seven feet from the lowest levels were found two colored potsherds of a quality texture and finish worthy of the artistic taste, skill and creative fancy of classic Greece in the best period of her history. Five feet higher still another fragment of pottery of similar quality were found. Of these three fragments two are red; one is black. Though these are only fragments they prove that the art of making pottery was both better understood and more carefully practiced in very ancient times than it was for several thousands of years afterwards thus showing a marked deterioration in the art of pottery in Babylonia long before the beginning of authentic history. In the lowest twelve feet of the pottery bearing strata of all the mounds there *is* no sign of a brick or of a wall or of a tablet or of an inscription of any kind so far as we have been able to discover.

In the Temple Hill or Mound the lowest construction hitherto discovered is the vaulted drain described on page *blank* and, strange as it may seem, it was made of the oldest known kiln burned bricks and was covered with a perfectly formed arch. Hence the oldest construction known to man is an efficient drain surmounted by an arch embodying its perfect principles of construction.

It is possible that other constructions, which have not yet been found, preceded the drain, or were co-existent with it, but even in that case it remains true and is worthy of the highest consideration, that as soon as an arch was required, a perfect arch, perfectly adapted to its end, was made from clay which was the only material at hand, in a land where neither timber nor stone were to be found.

It was no crude affair requiring generations of men to perfect it; but was in its principle and character a perfect monument from the beginning, though of simple and natural construction.

Four feet above the bottom of the drain and on a level with the top of the covering arch are the foundations of the earliest edifice, twenty three feet square and in its ruins eleven feet high, which has yet been examined. This is the structure which lies underneath the eastern corner of the ziggurat of Ur Gur's time. No clue to its age exists excepting that it was in ruins in the time of Sargon and lies beneath the pavement of his son Naram Sin.

Eight feet above the top of the arch was a curb bounding a sacred enclosure, possibly antedating the first ziggurat of which we know but little. Three feet above the curb and within the sacred enclosure stood an archaic altar. This was below the level of and therefore preceded the time of Sargon of Agade. Below the level of the altar and above the level of the arch were many large vases of pottery evidently intended and used to contain water for ablutions in the temple service. On the same levels as the curb and altar are remnants of several small aqueducts apparently intended to supply a stream of living water to be used in the temple service. How the water was raised to the level of the aqueducts no trace is found.

On the level of the curb fifteen inscribed tablets were found. These tablets were doubtless the lowest and belonged to the oldest stratum that have yet been uncovered at Niffer. At another point and on about the same level were found a few fragmentary tablets which I do not think belong to so early a period as the above.

About thirty feet above the plain level, the pavement of Naram Sin gives us the approximate date on which we can rely. All that lies below that level can only be compared in its relation to the known work of Naram Sin. Above the pavement of Naram Sin many trustworthy clues and well known strata in which pottery of coarse texture and inferior quality everywhere abounds, but none to compare with the three small fragments described above, nor will it compare with the commonest pottery found in the lowest levels.

To return now to the mound numbered I. The lowest three feet as has already been mentioned consisted of black ashes and finely intermingled strata of earth containing only a comparatively small quantity of potsherds and lumps of clay worked in the hand.

Then comes a thicker layer of fragmentary clay colored pottery of good quality.

Lumps of clay, worked in the hand, were still found scattered through the next six feet as the successive strata were traced in ascending altitude. At the height of about seven feet a layer of ashes, nearly brick in color were observed. Pottery is observed everywhere but much less abundant in the lower part of this mound than in the temple mound but the same facts are also observed viz. that the pottery of the earliest period is superior in quality to the pottery of the Sargon and the post Sargon period.

In the narrow shaft, not exceeding four feet square, no construction of any kind was encountered, nor was any trace of civilized life noticed beyond the ashes, lumps of worked clay and potsherds, which have been duly mentioned and occasionally a decayed animal bone in the lowest thirty feet of accumulated debris. At the height of about thirty one feet a wall of crude or sun dried bricks was cut through. It was nine feet high and only two feet thick and could only have been the wall of a light building like a private dwelling, I think. Extending partly underneath the wall was a grave made of crude bricks described in the chapter on "Sepulchers and Burial Customs". I do not know the approximate age of this grave; but I am sure it is not later and may be much earlier than the era of Sargon.

At the height of about seventy feet a stratum was cut through which produced inscribed tablets of the Kassite period c. B.C. *Hilprecht: 1400* and about five feet higher was the level of a later lot of tablets belonging to about B.C. 450 (?)

At the height of eighty one feet above the level of the original plain, the shaft passed through a burned brick pavement in the court of a dwelling and two and one half feet higher a similar and later pavement was pierced in like manner.

It is possible and perhaps probable that the latter belonged to the Selucian (*sic*) period. This conclusion is based on the similarity of the structure and its building material to the houses supposed to belong to the same period on the Temple Hill and within the Enclosure of the Temple itself.

I am well aware that this identification is only conjectural as the bricks were not stamped and neither inscriptions nor well-marked objects of any kind were found to give a more exact testimony to the date of these houses.

Ninety feet from the level of the plain, the shaft cut through the earthen floor of a house belonging to the Jewish (?) period and to about the *Hilprecht: 8<sup>th</sup> century AD*.

Potsherds abound in great profusion throughout the shaft in all depths and of all ages, from several thousand years B.C. down to the first centuries of our era.

As in the Temple Hill, so in this shaft, the earliest specimens of pottery are far superior to the later. Before the time of Sargon of Agade, the quality of the pottery had deteriorated in a marked degree and again from the time of Ur Gur further deterioration is also traced in the art of pottery making.

It may in general terms be said that after the time of Ur Gur the coarser kinds of pottery differ little from the common pottery made in Baghdad today. At the same time, it should be said that

many kinds of pottery in many styles and qualities were made before and after the time of Ur Gur.

### *Hilprecht: Temple (III)*

By far the most interesting and perhaps the most permanently valuable part of my recent researches at Nippur were on the Temple of Bel and in its great court, which has been frequently described as the Temple Enclosure or Temple Area.

These researches were made under difficulties, disadvantages and dangers which at times seemed likely to render futile my best endeavors. In the end faith, courage, energy and persistently repeated effort in season and out of season, brought success in full measure. Many valuable discoveries have been made. More than *blank* names have been added to the fragmentary lists of kings, and the story of their reigns is outlined by a growing mass of material gathered from inscriptions, monuments, utensils and works of art. The borders of ancient history have thus been enlarged; its visible horizon extended. Our knowledge of antiquity is rapidly widening, its barriers are breaking down. The myths and legends of an almost incredible antiquity are being tested and corrected by the written documents and living monuments of rulers and builders whose names are now familiar to us as household words.

The traditions of the last decade merge into the substance of authentic history of our day and become the common heritage of all, so that the christian's faith suffers no violence, but is rather strengthened by the confirmation of fragments of early history preserved to us only by tradition. It is not too much to expect that ancient history will require to be rewritten when our explorations at Nippur shall have been completed. The history of Babylonian art will also gain much in the revelations of history; much more from the remnants of ancient handiwork as our knowledge of the institutions, arts and customs of the earliest period of civilization increases.

There is little doubt that other valuable discoveries will reward the continued painstaking exploration of the Temple Area, and it is our hope and plan to continue the work of exploration until at least the Temple Area shall have been fully examined. Many details of the Temple are still involved in obscurity. We can hardly hope to fathom all its mysteries, and yet it remains our plain duty and high privilege to examine as fully as possible, and to explain as best we can, its many features and functions which now lie beyond the limits of our knowledge. I will not, therefore, in its present state of incompleteness, attempt a general description of the temple at this time, but without even attempting to enumerate all of its interesting details, defer the general statement until the Temple Area shall have been more fully explored. There are, however, several notable discoveries in the details of the temple itself and of its environs, so unique in character and of such importance in the history of ancient art that they cannot be wholly omitted, though they find but brief mention in this partial and preliminary narrative of my work.

The most interesting of these are:-

1. The Causeway
2. " Conduit

3. " Archaic Altar
4. " " Curb
5. " Water Vents or Water Cocks
6. " Keystone Arch.

#### The Causeway.

The cause-way is an approach to the terraces of the ziggurat of Ur-Gur's time, and was built by Ur-Gur himself. It consists of two nearly parallel facing walls of kiln burned bricks filled in between them with a solid construction of crude or unburned bricks. The burned bricks are of the usual size and proportion of Babylonian bricks and in average dimensions are about twelve and a half inches in length and breadth, and in thickness about two and a half inches. All the burned bricks were of one mould and perhaps three-fifths of them were stamped with the name of Ur Gur. The remaining two-fifths were never stamped but are of the same manufacture as the stamped bricks. The crude bricks approach more nearly the form and dimensions of modern building bricks. They measure  $9 \times 6 \times 3$  inches and were not stamped, and though widely different in form from the stamped bricks of Ur-Gur, these are also identified as Ur-Gur's bricks from their relation to the kiln burned bricks of Ur Gur in the causeway, and in the body of the ziggurat itself. The burned bricks were laid in bitumen as are also the facing walls of the lower stage of the ziggurat which was built by Ur Gur. The crude bricks were laid in a mortar of clay mixed with straw. The facing walls were 4 ft. thick and as they rose sloped inward with a batter of one to eight, or one and a half inches to the foot. The batter of the lowest stage of the ziggurat is three inches to the foot or one to four, being just double the batter of the causeway walls.

Note Height and width of causeway can be obtained from some of my letters and from Meyer's drawings and plans. A sufficiently clear description accompanies photographs of the causeway. One or two photos of the causeway should be published with this description.

#### The Conduit.

Note. Meyer's drawings, sketches and plans of the conduit should be published, and I think the description which accompanies and follows them will be found sufficient. (See letter of August or September 1894)

#### Archaic Altar.

Note This is shown in several photographs and the description of its discovery about Jan. 1894 will perhaps be sufficient.



### Archaic Curb.

Note. Meyer's drawings and photographs should both be published and the text accompanying them.

### Water Vents or Water Cocks

Note. Meyer's drawings and accompanying description ought to be published. Fragment of fountain discovered in bed of Shatt-en-Nil in Aug. (I think) 1893 might also be mentioned quoting from letter and if possible photographed or drawn from illustration.

See also the seven following pages.

Near the foot of the Altar, but at a much lower level, and between the level of the drain and the very ancient edifice whose foundations lie four feet above it were found great numbers of archaic water-vents of terra cotta in a more or less broken condition. Altogether several hundred of these objects were found within a radius of five feet. In all this large collection no perfect specimen was found. All were more or less broken. A considerable number, however, were but slightly defective, and from these a complete and faithful restoration has been made. They were all found near the arch and in same level as the crown of the crown *sic* of the arch surmounted by a terra cotta tile or pipe with which I believe it will be associated when by continued exploration we shall have gained a clearer understanding of the various aqueducts of later date and their uses in the purifications and ablutions required in the temple service. Their position thirteen feet below the pavement of Naram Sin attests for these archaic forms a venerable antiquity.

Fig. 29. shows a general sketch and gives a section of the terra cotta water cock or vent. It terminated in a wide funnel-shaped end, where the pottery presented a comparatively thin flange-like edge into a tile or pipe probably entered. The cock or vent had two openings or discharging orifices; one perhaps being turned upward, while the water flowed through the other which probably turned downward. (Precisely this type of water vent is in common and constant use in many parts of Turkey at the present time, the vent being placed in the public fountain with the larger opening turned upward. The stream flows through the downward turned opening into a trough of stone below it. Women and girls resorting to the fountain fill their water-pots by holding them in line of the falling stream, and for this purpose the upward-turned opening has no office to fill. It has a clearly defined use when when (*sic*) a thirsty traveller or a villager without a cup seeks to quench his thirst from the flowing stream. The wayfarer closes the lower opening with the palm of his hand, and putting his mouth to the edge of the upturned opening, drinks the overflowing liquid as it rises of its own force to his thirsty lips. In the city of Brusa at the foot of

Bithynian Olympos this is a common sight as it is also a remarkable instance of the tenacity of ancient customs, manners, and methods.

### The Keystone Arch

It now appears that the arch was first built of bricks and in common with many other constructions, institutions, customs and habits, which have descended to us, had its origin in Babylonia, where Scripture and tradition, confirmed by modern research, find the earliest traces of civilized man. It would also appear that the origin of the arch is co-eval with the introduction of burned bricks and that it precedes the art of writing on tablets of clay so far as we have been able to discover.

A paved water course more than 40 ft long trending N.E. & S.W. extending diagonally far under the most ancient ziggurat ended in a vaulted drain which now measures 3 ft in length from the outlet of the drain or water course. It is probable that the entire water course was originally vaulted; and it is certain that a considerable portion of it was vaulted.

The northwest end of the vaulted part of the drain shows a perfectly formed elliptical arch 1'8" in span; of 1'1" rise, with a total height of 2'1" from the pavement to the top of the crown inside.

The arch is built of burned bricks of the most primitive type such as occur in the archaic curb, which bounds the sacred Enclosure of the pre Sargonic dynasty of kings and they are laid as radiating voussoirs in a symmetrical keystone arch.

These bricks measure twelve inches in length; are six inches wide, and vary in thickness from two and a half inches in the center to about one and a half inches at the edge. They are plano-convex in form and their convex faces were indented with a finger dot or creased by a finger mark. Sometimes they were deeply creased by drawing one or more fingers across them lengthwise, sometimes they were deeply and irregularly indented by pressing the thumb and index finger into the middle of their convex faces, thus leaving two dots or indentations. They were soft and porous in texture, light yellow in color and their faces were rudely formed by the hand, the creases and dots being evidently designed to secure a firmer hold on the cement of clay. This is the earliest type of burned bricks which have been found at Nippur or elsewhere in Babylonia.

Some of the bricks appear to have been chipped to a wedge shape, but the curve of the arch is mostly effected by wedge shaped joints of the simple clay mortar used to cement the bricks.

The arch consists of 13 voussoirs springing from two courses of bricks laid on edge with the small end exposed, herring bone fashion, which in turn rest on a single horizontal course of bricks laid on edge leaning toward the northwest and these are supported by a single course of bricks laid flatwise with the convex surface uppermost.



The side walls of the drain are built as follows. Six courses of bricks are laid flat-wise with the long edge presented to view. Upon those two courses are laid edgewise with the end shown and upon these two courses laid similarly to the six lowest courses complete the walls of the primitive drain. The drain is apparently much older than the very ancient edifice whose foundations lie fully four feet above it and to whose age no certain clue has been obtained.

Eleven feet of accumulated debris, representing an unknown period of time, had already covered the crown of the arch before Naram Sin laid his pavement above it. On the outer or southeast side, the arch is somewhat flattened by the weight of earth above it perhaps when the clay mortar had been softened by percolating water. On the top of the crown of the arch is a crushed terra cotta tile or pipe which was perhaps 3 or 3½ inches in diameter.

Just beneath the level of the pavement and also in the middle of the water channel are two parallel terra cotta drain tiles 8 inches in diameter with a 6 inch flanged mouth. The joints or sections of the tile measure two feet in length and are laid in a bed of clay mortar and its joints are filled or cemented with the same material. The mouth of the drain is closed by a T shaped construction of the same primitive type of burned bricks of which the vaulted drain is built. Whether this was the means employed for centering the arch no one can say. Since there is no trace of this construction within the arch, but only at its outlet, there is some reason to think that it may have been a device to exclude domestic animals, like sheep, from seeking shelter within it against the pitiless sun's rays in midsummer.

For a distance of 6 ft. beyond the vault the water course is lined on each side with a single row of bricks standing on end with their faces toward the water channel.

The arch is a remarkable piece of work for it is a true elliptical arch constructed on the principle of radiating voussoirs. It is not a pointed arch with a block placed between the two parts on the top, but a true curve where each brick is an independent member.

The N.W. end of the arch is in fairly good condition with only two of its bricks driven out of line. In the intrados of the vault the bond is indifferent being neither a regular bond nor successive rings but a mixture of both.

It is surprising and interesting to have discovered a true keystone arch antedating (*sic*) by 3,000 years the oldest arch of its kind which was previously known to history; but it is still more surprising to find that the earliest construction of burned brick which has ever yet been unearthed is a drain; and again when we find this very drain vaulted with a perfect arch, the boasted intelligence of the 19th century reaches the utmost limit of astonishment; for the existence of the

arch at the very point where men first began to build is contrary to all our notions of the conception and evolution of the arch as an important element of modern architecture, and yet the earliest construction known to man is a perfectly formed arch of the keystone type covering a drain. Below the level of the arch no burned bricks have hitherto been found at Nippur.

It is not therefore improbable that in a land where no stone was to be found, the necessity of constructing drains and water courses of some durable material, which should resist the action of flowing water, led to the invention and adoption of burned bricks to pave the bottom & build the sides of waterways.

The necessity also of covering the drain with enduring material seems to have led simultaneously to the construction of the arch. Not only was the principle of the arch perfectly understood in Babylonia as the earliest architectural construction known to us seems to prove but certain other useful arts were more perfectly understood and more skillfully practiced in the earliest centuries of Nippur's history than they were for several thousands of years afterwards.

The multitude of potsherds scattered profusely through the vast accumulation of debris and deposits, attest the fact that the art of making pottery was better understood in the earliest times. The best examples of pottery were found at a depth of eight feet below the level of the arch.

The very earliest traces of civilization at Nippur are ashes where fires were built on the level plain. Immediately above these are fragments of potsherds (*sic*) mingled with the debris of earth, decomposed refuse matter and ashes. Speaking in general terms all of the best pottery is confined to the lowest twenty feet and its decadence as an art dates from about the time of the arch which I also believe to be nearly contemporaneous with the foundations of the earliest temple, of which we know but little at the present time.

#### Note

Photograph and description of pointed arch should follow here. This arch was first mentioned in letter of April 27. 1895.

Its dimensions and further description accompanied the photograph at a later date.

1897-00-00. Haynes narrative, part 1. UPMAA\_Nippur\_12.07, 1-155 + 12.08, 1-122. L-229.  
TO

*Hilprecht's numerous corrections and comments to the text have been ignored.*

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In ancient times the territory round about Niffer was thoroughly irrigated by a system of canals from the "great River Euphrates" (Rev. 1.14:16:12) At the present time the mighty mounds of Niffer stand desolate and defiant on the reedy borders of the wide spreading marsh created by an overflow of a wayward division of the Euphrates vainly trying to irrigate one of the most fertile soils of the earth, made barren and unproductive by the desert loving descendants of Ishmael. Periodically the waters of this marsh become low and putrid, swarming with insects which bite and sting and buzz with ever increasing activity and virulence, by day and by night, as the season advances into summer and autumn, and until the wintry rains destroy the insects in the waning days of November. Those drying marshes abound in fever, famine and pestilence in the late summer, and in the later autumn months they reek with disease and death on all sides.

The greatest mortality occurs in the late Autumn and early Spring months. The majority of those who die in the autumn owe their deaths to malarial fever or dysentery, while great numbers die of quick consumption in the early springtime. The latter usually take cold in the autumn, suffer with malarial fever for several weeks and finally yield to a disease that I believe might have been avoided with intelligence and care. Even the thick skinned buffalo submerging his ungainly body by day in the muddy waters of the marsh, needs protection by night from the devouring hords of poisonous insects which attack man and beast alike. Yet in the results of its exploration, the choice of Niffer has been most happy.

The first expedition was organized in the year of 1888 and put under the command of the Rev. John P. Peters Ph. D. who as director, led the party successfully into the field, showing a spirit of signal courage and perseverance against difficulties, fatalities and obstacles which would have deterred a man of less courage than its determined leader.

The party of six persons arrived at Niffer on the 2nd day of February 1889, and four days later began active excavations with a force of Arab laborers that varied from one to two hundred in number. Fifty-eight days of actual excavation yielded good results. The summer heats were rapidly approaching; serious trouble with the Arabs had arisen, and on the 15th of April excavations were discontinued, and soon afterward the party disbanded.

In the summer of 1889 a terrible visitation of cholera swept over Babylonia, and in the vicinity of Niffer claimed for its first victim the perfidious chieftain who most sorely wronged the expedition. The death of that Sheikh was regarded by the Arabs of his own tribe, as an expression of divine vengeance and a just punishment for the treacherous acts of the tribe under the direction of its chief. Through the humiliation of the superstitious Arabs, it was now possible for the expedition to return to the very place whence it had been driven away a few months before, with disaster.

The party now reduced to three persons, returned to Niffer under favorable conditions, and on the 14th day of January 1890 resumed explorations with a maximum force of four hundred Arab laborers. Actual excavations were conducted for ninety-three days and came to an end on the 3rd day of May of the same year, and again a rich reward awaited the self denying efforts of that persistent explorer, searching after the buried treasures of a long forgotten past.

In the summer of 1892, the Committee of the "Babylonian Exploration Fund" having secured the necessary means, determined to take up the work of exploration at Niffer at the point where it had been left more than two years before by Dr. Peters. In due time the writer, who had already had more than ten years of foreign service as teacher, traveller, Consul, and had moreover been connected with each of the previous expeditions to Asia Minor and Babylonia, was sent alone to continue explorations with native helpers for a period of not less than two, nor more than five years of continuous research in the gigantic mounds of the ancient Nippur.

By all Babylonian travellers, explorers and historians, it has been considered impossible for an occidental to conduct explorations through the burning heat of a Babylonian summer, whose extreme temperature in perfect shade often reaches 120° Fahr., and has been recorded at 124° fahr. The average maximum for the months of July and August from year to year is about 115°. From May until November countless hosts of devouring insects swarm from the great marshes, to make life a weariness to the flesh, and the stifling dust squalls and sandstorms, which last for many months, blind the eyes and choke the throat, and grains of sand, and bits of pottery pelt, and cut, and cause to sting, the parching cheek, half paralyzed with heat, electricity and the stinging concussions of the windswept objects hurled with fury against the exposed parts of the face, neck and hands, and clouds of dust rob the noonday sun of its shadow.

In pursuance of plans formulated by his committee, the writer sailed from New York on the steamship Nevada, August 28, 1892 and reached Liverpool on the 7th and London on the 8th of September. It was his intention to hasten from London, through Europe by the Oriental Express to Constantinople in three days, but cholera having in the meantime appeared on the continent, quarantine was established at five successive frontiers between Vienna and Constantinople, making the journey by rail both tedious and expensive. Under these conditions, it seemed best to make the journey by sea from Liverpool to Constantinople. Steamers were also detained because of the quarantine, and the first steamer sailing for Constantinople left Liverpool on the 28th of September, calling at Gibraltar, Malta, Syra and Smyrna, arriving at Constantinople on the 14th of October. Application for an Irade from his Imperial Majesty, the Sultan, was at once filed with the Minister of Public Instruction and secured at the expiration of ten weeks. After obtaining the Irade, the journey to Babylonia was resumed. The route lay by sea to Alexandretta, thence overland by a caravan of horses and mules to Aleppo in four days, to the banks of the Euphrates in three days, down the right bank of the Euphrates for three weeks to the site of the ancient battle field of Cunaxa, thence across Mesopotamia at its narrowest point in two days to the "City of Peace and the Tower of the Saints," the "ever glorious city of Baghdad" on the Tigris, where the journey was broken on the 6th of February 1893, for thirty days, by reason of the illness of the camp steward and delay in the arrival by steamship of general supplies from New York and London.

The general supplies and equipment from New York and London had at length been received, cleared at the custom house, and repacked for transportation by pack animals. The camp steward had recovered usual physical health; certain lines of supplies had been completed in the capital of Haroun-al-Rashid, pleasant relations had been established with His Excellency, Haji Hassan Pasha the Governor-General of Baghdad, who had graciously furnished an escort and guard of



four soldiers from his capital, and ordered two more to be provided from Hillah, the site of ancient Babylon.

On the 9th day of March, the little party consisting of the Turkish Commissioner or inspector, Saleh Effendi, three assistants, four soldiers, and the writer filed out of the southern gate of the City of Caliphs with a mixed caravan of camels, horses, mules and donkeys numbering fifty-three in all, of which nine horses and donkeys were ridden by as many men. Forty-four animals were laden with boxes and bales of many shapes and sizes, containing the supplies, implements and equipments for our existence and work of exploration in the desert. The party crossed the Tigris on a pontoon bridge owned by the government as source of revenue. The toll for a donkey load is two cents, for a loaded mule or horse four cents, for a laden dromedary eight cents.

Toward nightfall the party rode with all the caravan into the capacious court of Khan Mahmoudieh, an enormous caravanserai covering more than two acres of ground. Several hundred pilgrims from India, Persia and Southeastern Russia had taken possession of the great Khan. Like everybody else, our party spread its own beds and cooked its own meals independently, there being nothing furnished and no rent for the Khan, which is free to all.

The second day of our journey was a day long to be remembered in the annals of Oriental travel. As the little party left its capacious caravanserai at the rising of the sun, the sky was overcast with heavy clouds, and the wind blew cold and damp from the South seeming to threaten rainfall, but no rain fell. The violent wind increased hour by hour and before 9 o'clock a terrific storm without rain met us full in front. For six long weary and anxious hours we fought and struggled against the most violent, the most suffocating, the most blinding and by far the most bewildering sand storm, so reliable people declare, that has visited this region in many a year.

The wind blew a hurricane, and raised thick clouds of sand and dust so impenetrable to human vision that at a distance of fifteen feet, the eye could not distinguish an animal form. With terrific force particles of sand and the finer impalpable dust of ages were driven against the half paralyzed cheek, filling eyes, ears, nose and mouth, and choking the throat, while stifled with dust and germs, it gasped for a single breath of fresh air. The desert sands were shifted and drifted like the feathery flakes of the new fallen snow on the stretches of the rolling prairies or a mountain top of New England. Under the lee of every telegraph pole, and behind each ant hill, the sands were gathering in hard drifts. The ancient irrigating canals in process of obliteration caught the flying sands while the clouds of dust swept on apparently undiminished in volume and fury. It was only with the greatest difficulty that the pack animals were kept together and in motion, and when toward nightfall we arrived safely at Khan Mahawil, six miles from the ruins of Babylon, which hallowed site lay ahead of us on the morrow's journey, there were feelings of profound gratitude that neither man nor beast had suffered permanent injury, though other travellers had strayed or perished in the fury of the storm. It was afterwards learned that many had lost their lives in the severity of the storm, showing from how a great a danger we had escaped, and unto that kind Providence who watches over all His creatures, we returned hearty thanks.

When Hillah was reached at noon on the third day from Babylon *sic, Baghdad*, the newly arrived Mutiserif or governor of the Sanjak of Hillah was ill and unable to receive us at the palace until the 14th, three days after our arrival. Our powers to endure had already been severely tried, and this delay was greivous. We were anxious to hasten forward to the field where our deepest interests lay, and right glad were we when on the following day we could set forth knowing that friendly relations with the Governor had been established, and that our interests would be both protected and projected by virtue of his kindly offices, now enlisted in behalf of a work of interest and value to the whole civilized world of progressive thought and purpose.

A contrary wind arose the following morning, but the growing party faltered not, and with the addition of thirty-five skilled laborers with their families, and two soldiers, and also with beds, tents, implements, equipments and provisions, embarked in three of the larger type of boats on the Euphrates, and began the descent of the noble stream alternately rowing and towing, pulling, pushing and punting, drifting and sailing the keelless craft against a head wind with the swirling current alone to aid us. All day we toiled in this romantic manner, and at eventide, having covered some twenty miles, found ourselves at the upper or larger Haghan, where we gladly moored for the cold night as the violence of the wind increased. Daghara, some twenty miles further down the stream, was reached in the early afternoon of the following day. At Daghara the boats were moored two nights, while Saleh Effendi the Turkish inspector or commissioner and the writer, having secured at exhorbitant prices the only mules to be hired, set off overland to pay official visits to the sub-governor (Kaimakam) of Divaniyeh, some ten miles distant, in which district Niffer is also situated, about twenty-five miles from Divaniyeh and twenty miles from Daghara.

At the palace in Divaniyeh a handsome entertainment was given, and all the high officials and functionaries of the civil and religious orders became apparent friends and proffered their kind offices in all courteous and useful ways. Officials everywhere in the vilayet of Baghdad have been uniformly courteous, obliging and active in all that they have been requested to do for the expedition, and in all these things his former experience as United States Consul at Baghdad and the relations both official and private growing out of the office have proved to be of great personal advantage to the writer, and has given him greater influence in both official and personal intercourse with civil and military authorities, than could have been hoped for or asked, for all of which we are duly grateful.

The Governor of Divaniyeh, whose brother was a personal friend in Baghdad, and whose distinguished family represents the bluest blood of the old time aristocracy of that wonderful city in the palmier days of her bygone history, after he had sumptuously entertained us over night, insisted on preparing a mid-day banquet, which so detained us that we only returned to Daghara at eventide. However since the wind had been contrary and violent all the day, nothing had been lost by the delay at Divaniyeh, while the visit itself bore abundant fruit throughout the entire three years of research in the mounds of Niffer.

After a comfortable night's rest in the government palace at Daghara, the party set sail with a favoring breeze for the seat of Haji Tarfa's empire some six miles distant from Niffer toward the

southeast. Some two miles above Daghara, we had left the “Great River Euphrates” turning into a division of the noble stream, which division creates the great marshes round about Niffer, and continuing its meandering course through the low parts of the alluvial basin included between the two great rivers of Mesopotamia, rejoins the Euphrates one hundred miles further to the southeast near the site of Ur of the Chaldees. Our voyage was now among the Arab tribes, whose lofty castles bristle with Arab fiends vieing (*sic*) with each other in petty tribes and under petty sheikhs for control of irrigating streams and adjoining territory. At Abud-el-Gumba’s camp a messenger and guide from Haji Tarfa awaited our arrival, and according to Arab customs escorted us past several castles to the powerful and dignified Sheikh, who, with rare tact, sagacity, judgment, and power, rules in equity and honor the several sub-tribes of the Afaj and El Hemza Arabs, each under a petty chief or Sheikh, a sort of “Imperium in imperio”

Haji Tarfa received us cordially at the door of his guest chamber, and in gracious speech acknowledged the receipt from the Committee of the “Babylonian Exploration Fund” of a gold watch which it was my good pleasure to present to him, as a token of good will and a pledge of faith. He promised to see us safely established at Niffer with the least possible delay and expense to us, and accordingly he despatched swift-footed messengers to summon to his council chamber the two younger and principal Sheikhs of the El Hemza tribes. Abud-el-Hamid and Hamid-el-Birjud in whose immediate territory the mounds of Niffer lie. To those two younger Sheikhs Haji Tarfa proposed to commit our party, and to hold them responsible to himself for its safety and welfare. Early on the following day the wiley, smooth tonged chief Hamid-el-Birjud responded in person to the summons. From the more honorable and stolid Sheikh, Abud-el-Hamid, president also of the five sub-tribes of the El Hemza Arabs, answer came that he had a pressing task to finish, and that he would first complete his work, and then obey the summons. He came at nightfall. The evening hours were spent in the hardest, closest most determined bargaining in which I have ever participated, for those means of protection to life and property recognized by Arab customs, which, “like the laws of the Medes and Persians” altereth not. The two chiefs Abud and Hamid, were greedy, covetous, and without scruple, and were determined to force from us large revenues by reason of the necessity that was upon us to secure their good will and protection. The expedition having a great and noble work to perform was under an imperative, moral obligation to the whole world of science and scholarship to make its scanty funds do the utmost labor in achievement of great results in recovery of lost history. It was the spirit of enlightened progress and self-denying research striving against great odds with the unscrupulous greed of the ignorant, fanatical Arab at his worst a villain by nature, and at his best a self-trained robber.

In the preceding campaign a guard of twenty Arabs had been employed and regularly paid for, although less than half the number paid for was actually furnished. The Sheikhs who received the full payment for the guards, put a large part of the money in his (*sic*) own purse, and moreover levied a regular tax on each family of laborers who came from a distance. The revenue thus received was a princely income to the mercenary Sheikh Hamid-el-Birjud, who by fair or foul means, was now determined to increase the rate of his former income, while the expedition was under the stern necessity of reducing such fruitless items of expenditure to the lowest reasonable and safe limits. I, therefore, asked the sheikhs to furnish two guards, was laughed to

scorn and met with a firm demand for twenty after pretended show of necessity for forty and then thirty. As his guest I appealed to Haji Tarfa, who replied “For my private premises in this large encampment I employ four guards, how can you safely live out in the desert with two guards?”

At successive intervals in the hard fought battle, I asked for four, six and eight watchmen, and finally accepted ten because I could do no better, and Haji Tarfa being again appealed to, insisted upon that number, saying that the Es-Said tribe, from whom a robber had been killed by one of the camp soldiers in the previous campaign, had felt chagrined that the members of the expedition had eluded them before, and that they would be the more determined to settle the blood feud (*sic*) this time by the letter of the Scripture law “Whoso shedeth man’s blood by man shall his blood be shed.” Gen. IX.6.

The younger Sheikhs refused to accept the above terms still demanding twenty guards. After every possible argument had been repeated and exhausted, and every possible attempt made by the Sheikhs to gain unlawful revenue for their patriarchal purses, all parties desisted to obtain a little rest and sleep in the remnant of the far spent night. As soon as the camp was astir in the morning, preparations were made, and in due time orders were given for the party to turn homeward. This necessary manoeuver succeeded where argument had failed. The Sheikhs accepted the terms, and Haji Tarfa bade them escort the party withersoever it might choose to go, and see it safely established wherever it might wish to dwell. Two hours sail found us within one and a half mile from the great mounds of Niffer, where on the 20th of March 1893, two hundred and seven days from New York, the expedition pitched its camp and established its headquarters for thirty-five months of consecutive work, save two months cessation from April 4th to June 4th 1894, when the party went as far as Baghdad in vain endeavor to return to native shores for rest and replenishment of outfit.

On the plain immediately to the Southwest of the wide spreading mounds of Niffer, a temporary camp was established near a small mud-filled irrigating canal, which supplies an intermittent stream of water from the neighboring marshes from about the middle of March to the middle of July. In July the canal dries, and does not again refill its muddy banks, until the melting snows on the mountains of Ararat send forth the Spring inundations to swell the rising current of the great river Euphrates until that noble stream overflows its banks and renews the floods in the great marshes and its radiating channels of irrigation.

Four tents of medium and small size sheltered the officers, soldiers, and camp servants of the expedition, and in the quadrangular space enclosed by the tents the boxes and bales containing the general stores, provisions, implements, and equipments of all kinds were stacked and protected with waterproof coverings. The Arab imagination, as fanciful as of yore, filled the boxes with gold and silver and coveted the precious metals with a robber’s greed for gold, which generally keeps apace with the fertile imagery of the Arab mind, and is as unbiased by the limitations of logic or the laws of physical science, as were the matchless story tellers of the “All glorious city of Baghdad” under the brilliant reign of Haroun-al-Rashid in the golden age of Saracenic history. It was essential to store the boxes out of the sight of a robber people. It was equally essential to secure better storage for valuable instruments used in photography, surveying

etc., than a tent on the shifting, drifting, sands of a burning desert, and it was much more necessary to secure the shelter and protection of walls and roofs for those who were born and bred in cooler climates.

It is true that in the two former campaigns the party lived in tents, but it was then winter, and moreover native storehouses had to be built at considerable expense for the short seasons of two and a half and four months respectively. For a period covering two or three consecutive summers, it was an absolute necessity to build a more permanent shelter, that should also have the appearance of strength, and exclude the people round about us from its precincts. The first task was, therefore, to build a defensible or fortified structure combining, so far as possible, the features of a castle, a storehouse, and a dwelling for the members of the party. Around the four sides of a court twenty by thirty-five feet a building 70×50 ft. was erected, having no external windows, and but one door. The exterior walls were made of clay laid up en masse. They were seven feet thick at the bottom and gradually diminished in thickness, as they rose with a batter of about two inches to the foot on each face of the wall. The partition walls two feet thick were built of ancient kiln-burned bricks averaging one foot square and two and three quarters inches in thickness. A kitchen, several store rooms, for provisions and antiquities, and quarters for the camp servants and soldiers were built around the court, the soldiers being so placed as to command the doorway, within which the Arabs were not admitted. Beside the other store rooms was a place of storage for fuel and a chicken coop. Near the center of the court a well was dug, and a pump inserted, though the water was too strongly impregnated with various salts to be used. The well was made to furnish water in case it might become necessary to have a supply of water which the Arabs could not control at will. A second story was added to the southeastern end of the "Castle", as the Arabs designated the building in common speech. In those upper rooms the director of the expedition and the Turkish commissioner or inspector lived. There was also a drying room for tablets in the upper story. The flat roof covering the second story made an excellent sleeping place for the summer months, when it is too hot to sleep under cover of tent, or within walls of any kind.

Like many of the ancient structures, the angles of the "Castle" were placed towards the cardinal points of the compass. This was done to secure a direct breeze through the building in summer when the wind steadily blows from the Northwest. It is almost certain that without the shelter and protection of the building, the health of the party, and therefore its success, would have been greatly impaired, and it is probable that the first summer would have proved fatal without its grateful (*sic*) refuge for the midday rest, and its high sleeping place in the cooler strata of the sultry night air at Niffer.

Under the superintendence of the writer, the entire building was built in twenty days by the skilled laborers which he had hired from Hillah to excavate the mounds. Palm logs were brought from Hillah, and reed mats purchased from the neighboring Arabs were utilized as a support for the floors and roofs of clay-cement. The few doors in the building were made by the writer's own hands from small poplar poles and old boxes. There was among the workmen one bricklayer, but no carpenter nor other artisan except the laborers skilled in searching the graves

and habitations of antiquity. Yet the "Castle" though rudely and roughly built attracts attention and answers every use of comfort, shelter and protection which it was designed to give.

The house having been completed, the tents were quietly struck and folded away, the property of the expedition was safely stowed away from the sight of covetous eyes; and the party took possession of its fortified dwelling happy to be again free from the prying crowds of curious and covetous idlers always thronging about the tents; henceforth to be excluded from the privacy of the fortress home with its sacred shelter of peace even among a robber people.

At the point where Dr. Peters had finished his fruitful search for tablets, nearly three years before, the writer resumed active explorations on Mound X the 11th day of April 1893. In the spring of 1893, and the winter and spring of 1895, several thousand tablets were recovered from the ruins of this mound, which up to the present time has been most highly productive of inscribed tablets, some of which are of venerable antiquity. Several rooms of an ancient palace were explored and found to preserve the archives in the very position and arrangement in which they had been left when the building was destroyed.

In several instances, the tablets were placed on their edges reclining against each other like a shelf of leaning books in an ill kept library of today. In other instances, the tablets were found in great confusion, showing that at the time when they were buried they had fallen with the debris which covered them. There is good reason to believe that tablets were sometimes stored in a second story room, and were precipitated with the falling floor when its building fell into ruin from neglect, fire, or from wanton destruction, for all of which forms of decay there are abundant traces in different parts of the great mounds.

The tablets found in buildings destroyed by fire are generally well preserved owing to the results of the heat of the burning building, which process frequently baked the tablets most admirably. In buildings which fell into decay from neglect or collapsed in time of severe rain storm, the tablets, if unbaked, are generally found not only badly broken, but are frequently saturated with the salts of nitre, which chrysalize on drying and cause gradual disintegration of the tablet by the slow process of crumbling, and the more rapid flaking off of the surfaces of the unbaked tablet from the formation of crystals in the body of the tablet itself. Such tablets are difficult to manage, and even when legible, are disappointing from the fragmentary condition to decipher.

In time of severe and long continued storm in Babylonia, great numbers of houses collapse with frequent loss of property, and occasional loss of life. The rain percolates through the flat roof of earth, and enters the walls laid up in a mortar of clay, that easily dissolves as the rainwater filtrates through the interstices between the bricks, whether crude or burned.

In January 1896 so many houses in Hillah collapsed that parts of several streets were entirely blocked for considerable distances so that in passing to and fro, it was often necessary to make long detours frequently doubling the distance over the direct route. It is probable that buildings of the ancient cities roofed in the self same manner as the houses in Hillah today, frequently collapsed from the effects of percolating rain-water, and this in some small measure accounts for

the broken and crumbling condition of many unbaked tablets, and the evidences of such destruction to both houses and tablets are not wanting.

### Arab Laborers.

After a few months of exploration and the consequent training of our laborers, the efficiency of our workmen seemed to reach the limits of proper and reasonable endurance. Our basketmen were taken entirely from the neighboring Arabs. They were at first a wild, impudent, unruly and rebellious company, but by patience and kindness and a prompt dismissal of each offender and a firm hand at every point, those untutored children of the desert were gradually changed to the most obedient, willing, and active group of basketmen that have ever been gathered together in Mesopotamia.

To those who have seen these same wild people violently resist the efforts of their foremen to secure an average day's work, this will seem hardly credible, though it is literally true; and in a marked degree it shows the power of money, rightly employed, to do its legitimate work even in Babylonia and among the Afaj Arabs. These results have not been accomplished without a prolonged struggle followed by many of the tactics of the school room, with not a little of its wholesome discipline, and a suggestion of its moral influence, but its accomplishment shows the power of a strong moral purpose even with half savage people.

It has called into activity, and at times severely taxed all the patience, persistence, firmness, and resource at our command, and has often put us in temporary danger, although in the end it increases the general security of life and property for us among these people. Certain it is that greater outward respect is shown toward us, and the training of 100 men to render honest and efficient service for a set time each day for several months, will not be lost, I am sure, for at least one generation.

Not the least interesting feature of excavation work in the mounds at Niffer, is the long line of basketmen, wearily climbing the steep ascent from the court of the temple of Bel which contains more than sixty thousand cubic feet of earth, to the dumping place a distance of some 380 feet, and at the same time raising it to a height varying from a minimum of 50 to a maximum of 80 feet. The distance and height to which the earth is transported in basketfuls by this ancient method of unthinking human labor, is like that employed by King Sargon, and the innumerable hosts of his predecessors and successors have used the brute force of the multitude to build and destroy cities and habitations in their day and generation. The incline is steep; the climb wearisome, and the distance adds apparent weight to the burden borne at an expenditure of human muscle scantily nourished.

We may rest assured that the bulk of material which we are now removing, was brought hither from the plain below and around us, many thousand years ago, by the same shiftless and toilsome methods, which we find ourselves compelled to reverse in examination of the mound's anatomy. So far as details are seen, the picture presented is a living witness to the fact that neither methods of labor, nor habits of dress, have suffered change for thousands of years.

We now require a phonograph to prove that forms of salutation and speech, and habits of thought, suffer no change. We should then be driven to the logical conclusion that we employ the most ancient methods of labor, perpetuated without change by a people who want no change that is based on effort of mind or body. Nothing short of education and Christianity can awaken



and change the methods of thought inherited by these unprogressive and unlovely people; whose only willing contact with the modern world is the use of tobacco, coffee, the shotgun and coined money. Beyond these the only modern thing desired, is a repeating rifle. All other modern appliances are machinations, devices and snares of the Devil, to be contemptuously shunned, and bitterly hated as only ignorant, obstinate, tenacious, deluded fanatics can hate and despise a thing beyond their knowledge and comprehension.

Excavating is done in gangs. The chief of the gang wields a pick and is an expert excavator brought from Hillah. His immediate assistants fill the baskets with small hoes. Each such gang has a number of basket carriers, who bear their baskets on their hips with their hands under the basket, carrying it up and out of the excavation and emptying the earth on the heap of debris.

The pick and hoe are the only implements used in making the great trenches and tunnels, and the thousands of cubic yards of earth are removed outside of the site in small, round baskets.

No. 1 is the small pick (Kasmeh in Arabic), made of wrought iron, hammered out by hand, and fitted with a wooden handle.

No. 2 is the basket-filler's hoe, (Maharr in Arabic), which is also used to loosen earth that is not very compact, and to clean off surfaces. Like the pick it is made of iron, hand made, and fitted with a wooden handle.

No. 3 is the basket, (Zembeel in Arabic), used by the basket men to carry the earth from the excavation to the dump, often a wearisome climb up steps, or an incline rudely cut in the earth, up long slopes and out to the edge of the great sloping dump that always keeps growing longer and higher as the work progresses. The basket is usually made of a long, narrow band of plaited palm-leaf wound spirally and sewed so as to form a basket shape. Handles of the same fibre are firmly sewed to the sides and often the whole is bound around the edge with cloth to strengthen it, or a band of cloth sewed across the bottom to protect the laborers bare arm from the rough plaited palm. The method of raising the filled basket, is to grasp one handle, place the other hand under the basket on the opposite side, and sling it up on the back of the hip. Then the hand lets go of the handle, reaches under the basket and interlaces the fingers with the hand under the basket. In this way the basket is steadied while the weight is borne on the hip. These are rather rude tools, but admirably adapted for the use of our men who tread their toilsome way with their unwelcome burdens, vainly striving to earn a few piasters with which to discharge debt, or to hoard, not to spend in self-improvement.

Each Friday evening of the year, the weekly pay roll was tentatively made out and the payment of money made ready on the supposition that each laborer would be in his place on Saturday. Between the morning and evening of the following day, while superintending the work at the scene of excavation, the pay roll was adjusted and all hands required on Saturday evening to carry a brick to the castle. At the castle door the men by gangs formed in line. A tray containing the weeks wages in silver was brought out. The men by gangs filed past the paymaster who quickly distributed to every man his reward for his weeks toil, and each one went away happy for a day of enforced idleness to follow. Sunday was a day of rest at the castle and the workmen usually did their marketing on that day.

On Monday, the 16th. of July, 1894 the first serious accident, that had brought personal injury to any member of the present expedition, befell Ismail, a foreman of one of the gangs.

He was driving a tunnel along the northwestern facade of the lower platform of the early temple, cutting through the largest size of crude bricks  $13 \times 13 \times 9$  inches. In rivalry with other gangs, he had been doing magnificent work, and like many another had grown careless in the presence of a constant danger, that for a long time gives immunity to the bold man, he had paid too little attention to the vaulting of the tunnel, which requires the nicest adjustment of form where the arch has to be made, by cutting away from below the large and heavy sun-dried bricks, that are not even laid in lateral contact with each other.

Suddenly from the faulty vaulting, there fell several crude bricks and falling, caught Ismail, breaking both bones of the left leg about midway between the knee and ankle joint --- a favorable point for a novice to make his first attempt at setting the bones of a fracture.

A stretcher was hastily improvised; the fractured leg firmly bound in splints in the trench, and the patient removed to camp amid as much wailing as if the calm hero of the accident had died a lamentable death. The women of the camp gathered around and made the very earth tremble with the violence and vociferations of their lamentations. In their madness and frenzy, they cast themselves on the ground. They covered their heads with dust. They tore their hair and they beat their breasts in token of sorrow, and strong men wept with excitement.

As soon as Ismail could be made comfortable, in compliance with his expressed wish, a fleet footed messenger was dispatched for the native limp-setter, who, after he had examined the injured leg, assumed an air of great wisdom and importance, and pronouncing the splints rightly placed, called for additional bandages and a liberal amount of rice and egg---Heaven only knows what for.

Whenever left to themselves, the laborers would quarrel with each other, and only the authority of the paymaster, who had power to discharge and was known to use it whenever he wished, could control them. For this reason it did not seem prudent to leave the scene of excavation even for an hour. It has therefore been, and ever will be, I think, my policy to superintend in person, both work and workmen. I would never delegate it to an Oriental. Only an Occidental could maintain the discipline with firmness and fairness. The Oriental is tenacious and can be obstinate, and sometimes rigid, but he can no more unite kindness and firmness, or be uniformly just to friend and foe alike, than he can set the Euphrates on fire with his rude steel and flint. He can be many things in many places to fit times and occasions; but to unite kindness of heart, firmness of will, and steadiness of purpose, lies beyond his power of self-control, chiefly because it is beyond his knowledge of mental mechanics.

A foreman dares not press an unwilling gang except in the presence of the paymaster. In a time of unusual turmoil, an attempt was made by a reprovved workman and two of his relatives, to kill our most industrious and exacting foreman, as he was passing Shaheen's camp on his way to Suk-el-Afaj one Sunday morning. The attempt was unsuccessful only because the leveled flintlock missed fire, and before the attack could be renewed the foreman was rescued.

It was one of those hair-breadth escapes (*sic*) that are not infrequent in this region of intrigue and bloodshed, for two accomplices, seeing the gun miss fire, were rushing on the would-be victim as his armed friends behind him hastened to the rescue and saved his life.

On the fifth of January, one of our older workmen, named Sultan was summarily discharged from our service for crookedness, in concealing small antiquities, and the vacancy filled by promoting a more efficient man in his stead.

Six weeks later another foreman, named Ismail, was quickly discharged for resorting to the same sly methods that had caused the dismissal of his fore-runner Sultan. Both of these men had been corrupted by Mahmoud Effendi. The expedition had long wanted to be rid of Ismail, believing him to be dishonest; but, until the day of his dismissal, could find no certain proof of the suspicions entertained against him, and patiently bided its time.

Later a stone seal was found in a basket of earth by a basket carrier, who quickly and deftly secreted it in his mouth, and in a short time removed it to his kerchief, covering his head, tying it in the corner of the same. In this last act he was detected by the foreman of the gang. The seal was recovered under circumstances, which robbed it of its greatest interest and value, but the workman was discharged on the spot and at the moment of the recovery of the object.

The most serious accident that befell us at Niffer was the instant burial of two workmen under three feet of earth. It happened on the 11th. of March, 1895. Contrary to orders a certain foreman and his gang of assistants, Khalaff-el-Dash and his brother Gulli, in search of cuneiform tablets, had undermined a great mass of earth in one side of a deep trench. Without an instant's warning, the great mass of earth fell, and like the billows of the sea, closed over the bodies of the two unfortunate men leaving no trace of them. The falling mass had also caught a basketman several feet distant and pinioned him securely against a wall of burned brick. He was buried to his breast and had to be dug out; but to our everlasting joy, he was not seriously hurt. All hands were quickly called to dig out of their prison the two buried men. Like Arab fiends they worked with might and main, and with loud shouting encouraged and drove each other on. Within the space of half an hour after the accident, the unconscious form of the foreman was found, and being restored to the air, slowly revived.

He had been thrown by the avalanch of earth into a sitting position. The head was bent forward and downward, leaving a little breathing space below the downturned face. After the earth had covered him, he consciously breathed by quick suffocating respirations, and heard the people at work above him for a little time, and then lost consciousness, and, when found, gave no evidence that he would breathe again. His brother, Gulli, had been thrown at full length by the falling earth and had been so covered as to leave no air space about the face and he probably died immediately from suffocation.

Khalaff received no special bruises from the falling earth and aside from a few scalp wounds made by the tools in the work of rescue, sustained no fractures and apparently suffered no very great harm beyond the nervous shock. He is now doing well. His unfortunate brother Gulli, left an orphan, about two years of age. The mother of his child was murdered by a kinsman at Niffer in June 1894. The support of the child, therefore, fell upon Khalaff. In a double sense, the

expedition felt morally bound to do something for the orphan, and yet not relieve Khalaff from the responsibility of providing for his brother's child, according to the unwritten law of his people. After much thought, I gave Khalaff 5 liras, equal to \$22, enjoining him to provide for the child as well as he could in all ways, to which he agreed with a depth of feeling and tenderness that was quite touching.

A funeral train made up of picked workmen, were sent to bury the body in a consecrated spot of sepulture on the bank of the Euphrates. The sad affair cast a deep and dark shadow over our work at a time of great perplexity and approaching danger from Ahmed Bey, who was actively plotting mischief for us.

It was at the time very easy to see that if the victims of the accident had been from the Arabs round about us, serious consequences would have followed as soon as the people could have gathered, and even before the victims were recovered from the fall of earth a considerable crowd had collected, but the two victims completely buried, being Hillah men, the excitement quickly subsided. The basketman, whose lower parts were buried was fortunately unhurt and immediate trouble was thus providentially averted. All our basketmen except two are from among the surrounding Arabs. These behaved well under the trial.

It is generally known among the workmen that the foreman Khalaff was doing what he had been expressly forbidden to do in undermining the side of a deep trench. Khalaff well knew this, and his only feeling toward us now is that of profound gratitude.

After the accident, work was discontinued for the day, to be resumed on the following morning.

Since leaving Niffer, it has gratified me to hear from different sources that no such faithful and efficient labor has ever been secured in excavation, as we secured during the last six months at Niffer, and what is to our decided advantage, the choicest workmen swear an oath that they will work for no one else when we are in the field. They have caught something of the spirit of personal devotion that our steward caught several years ago, and which suffers no loss by lapse of time. I am therefore pleased with our workmen and gratified with their devotion.

It may be of interest to mention a very few of the superstitions which makes slaves of these ignorant, obstinate people about us.

The owl, in Babylonia, where no forest exists, naturally seeks the shelter of some deserted ruin, or conceals himself by day in some dark cave. The doleful bird generally finds some ruined habitation to screen him from the full rays of a blinding sun and takes prompt possession of it. This habit of the bird, in choosing the best shelter to be found for his daytime abode has given rise to the belief that the bird will cause ruin wherever he goes.

One morning a very small boy, with very large eyes and very little breath with which to speak, brought to our tunnel where we were writing, one of these ill-omened birds which he had captured alive. We took it and sent it to the castle to be cared for much to the dismay of Saleh Effendi, our worthy commissioner, who with loud moanings and dire protestations wisely predicted that the castle would surely be a ruin within a year.

This is not more singular than the belief, which is equally well founded, that the scent of soap will drive the buffalo mad, or the smell of grease will kill the beautiful gazelle, or that the fumes of camphor, be they ever so mild, will cause a child to sicken, waste and die.

These people believe that hidden somewhere in the mounds of Niffer, is a great boat made of gold, but the story teller wisely adds that it is guarded by a big black serpent so that no one can find it.

The common tape line with which our measurements are made is by our workmen regarded as an infernal machine of some sort, which is supposed to fly out and indicate to us the places of hidden treasures, and buried antiquities.

One old fellow tells the story that one night he came to the castle with the intention of robbery but lo! when he had reached the place, the magicians of white people had caused the castle to disappear and it could not be found.

Even our friend Haji Tarfa, to whom belongs the proud distinction of being able to read and write, tells us that in the great marsh not far removed from our castle, is an ancient ruin, around which lies great quantities of gold and silver, but whosoever attempts to pick up a piece thereof, is immediately bereft of his senses, and wanders around forever after in an aimless bewildered way.

## SEPULCHRES and BURIAL CUSTOMS at NIFFER.

The burial customs of any of the great civilized nations of antiquity, together with the habits of dress, ornaments and implements found in the graves, become most valuable adjuncts to the study of history and the development of the useful arts.

No necropolis, or place of burial has yet been found within or near the mounds of Niffer. Whether this is owing to the fact that our investigations have been chiefly confined to the larger mounds, and the architectural ruins of the ancient city, or whether in the earliest times, as among the neighboring Arabs of today, the dead were transported for burial to some sacred necropolis at a distance from Niffer, are questions which cannot be answered with authority, at this time.

Within a radius of five miles towards the northwest, the north and northeast of the temple of Bel, are several low inconspicuous mounds, which are known to contain ancient graves. It is not, however, known whether those burials were made on the sites of deserted villages, or in places chosen and used exclusively for sepulture. They have not been sufficiently examined to disclose their origin and history. The Arabs have opened a number of graves in those mounds with such implements as daggers, spear-heads, and hatchets. Beads, vases and occasional ornaments of gold are reported to have been found. The blue enamelled sarcophagus is also found there, and this leads to the conclusion that those selfsame mounds were used simultaneously with the larger mounds of Niffer for burial. This conclusion is naturally followed by the conjecture that the outlying mounds, like the mounds of the metropolis, were the sites of villages appropriated for burial, either while they were still used for dwelling places, or after they had ceased to be inhabited.

Nearly all of the six hundred graves opened by me in the mounds of Niffer were made either in the dwellings occupied by families, or on the deserted slopes of the mounds and in unoccupied parts of the inhabited city. In all ages of the history of this venerable city, from the time of Sargon the Great until the Jewish occupancy of the city in the early centuries of our own era, it was customary to bury the dead in the habitations of the living. In the earthen floors of the living rooms, and parallel to their nearest walls, shallow graves were dug and refilled with the earth that had been removed therefrom. The direction of the grave was unvariably determined by the orientation of the house, which enshrined it, and not by some fixed point of the compass, nor by the direction of some distant and sacred shrine as Mecca or Jerusalem. The graves at Niffer, therefore, pointed in every possible direction, like the graves in a moslem cemetery.

In several instances a single burial was made near the center of a small room undoubtedly used as a shop by some petty tradesman, whose bones finally crumbled to dust under the very spot his feet had trodden at his daily task in his life time, where too, perhaps, his weary body had found rest at night on a humble mattress or a single blanket; as multitudes of shopmen in the leading cities of Turkey to this day live, eat, sleep and trade within the narrow walls of a single room, often only a stall. Hundreds of the humbler tradesmen in Old Stamboul (Turkish quarters of Constantinople) have left their families in their native cities and villages in the distant parts of the Turkish empire, and for the sake of gaining riches to spend elsewhere, have gone to the capital for a period of five, ten, fifteen, or twenty years, with no social ties, cooking their own

frugal dinner at nightfall on a brasier of charcoal; live, eat, sleep, trade, and sometimes die within the confines of a narrow shop. The custom is very ancient and doubtless prevailed at Niffer in very early times, perhaps from the beginning of trade, as it exists in the cities and marts of Babylonia to this day.

At a depth of 83 feet beneath the top of Mound 1, a grave was found to have been made within the walls of a room of unknown use. It may have been a living room, or it may have been a tradesman's shop; we do not know. It is, however, probable that the very room which has for several thousands of years been the abode of the dead, had also, for a little while previously been the habitation of the deceased; over whose decaying bones eighty-three feet of successive accumulations had gathered from the constant changes of building and decay, while hundreds of generations of men had trodden the streets above his silent grave, and gone to their long last rest in sepulchers unknown to us. The grave was made of sundried bricks and is the oldest grave that has yet been found at Niffer. It is probably the oldest grave that has been found in the "Land of Shinah (*sic*)". No certain clue to its great age was found, yet there can be little doubt that it antedates the time of Sargon by at least several hundred years, and probably belongs to about the time of the archaic arch discovered in a different mound within the sacred enclosure of the temple of Bel. The grave was made of crude or sun dried bricks about 17 in. square and 4 in. thick. Three courses of bricks made the sides of the long narrow cell which was 5 ft. 9 in. long; 1 ft 7 in. wide; and 1 ft 1 in. high or deep. The grave was covered by a gable roof made of the same bricks resting on the sides of the grave, and meeting in an imaginary ridge-pole like the letter A. In the grave was the crumbling skeleton of a medium sized adult, beyond question a man's skeleton, and a broken vessel of coarse pottery. There were no ornaments, and the clothing had been absorbed in the earth, so also had the softer bones disappeared by the slow process of oxidation. The harder portions of the bones alone remained. The sutures of the cranium and the condition of the teeth showed that death had taken place at about middle age, or soon after the zenith of physical life had been attained. The bones, except the teeth, quickly crumbled into dust on exposure to fresh air and handling. Nothing abnormal in the form or size was noticed. Graves of the same construction were also made in much later times.

The next oldest grave can be approximately dated, and belongs to the era of the great and mighty Sargon. It was an ordinary household jar, 2 ft 8 in. in height, appropriated for burial, and it contained the partially decomposed skeleton of a child, together with several animal bones, and several small vases of different forms. The bones have been scrupulously saved. The skeleton is by no means complete; even parts of the skull are decayed. Many of the bones are however preserved. The cause of the partial decomposition of the bones is the fact that a quantity of earth had sifted into the vase and covering the bones had oxidized and partially absorbed them.

In examining graves at Niffer, it has been observed that when ever, from any cause, earth has fallen into the grave and covered the bones, that decomposition of the bones has generally taken place, and that on the other hand, in graves that had remained dry and free from infalling earth, the bones have generally been well preserved. The texture of the grave clothes is sometimes shown, so also the position of the body in its last resting place. From such graves, of which the

proportion is small indeed, have been gathered some of the firmer remnants of grave clothes, and they form an interesting study of fabrics and textures of ancient times.

In the slipper, bath-tub, and box coffins the lids being made of burned clay, have generally been crushed by the superincumbent weight of the earth above them, and have therefore themselves become filled with earth, causing a more or less complete destruction of the skeletons. This fact makes the collection of skeletons and even skulls difficult. In the present instance the fragmentary skeleton is preserved in the hope that its great antiquity will make it valuable for the purpose of comparative ethnology. This burial is also interesting as showing the depth of ancient burials, which, in this instance, was two feet or less. The top of this vase was two feet below the bottom of the massive and venerable platform of that prince of builders Ur Gur, and therefore could not have been more than two feet deep, while it may have been covered less deeply. This confirms an opinion long entertained by me on the shallowness of ancient burials in Babylonia. The Modern custom of shallow burials, in a land where customs never change, seems to be the heritage of high antiquity. At the present time bodies are frequently buried at a depth of less than two feet. There is no proof that the freshly discovered jar was buried two feet. We only know that it was not buried deeper, and therefore assume that it may have been buried to the depth of two feet.

During the cholera scourge in Baghdad in the summer of 1889, many victims of the dreaded disease were buried in the basements or summer living rooms of the houses where they died. After many inquiries respecting the depth of those domestic burials, it became clear that the deepest burials were very shallow, and that the average depth of burial did not exceed one foot. The majority of the victims being Moslems, were temporarily buried by the relatives in the family living rooms, and in winter were removed to the sacred shrines at Kerbella, Nejiff and Kathmain. It is however probable that a permanent burial would not have been made much deeper than these temporary burials, which were made in the heat of the Babylonian summer, for at least several months of decomposing change.

At Kerbella, Nejiff and Kathmain, it is said that the deepest burials are very shallow, the bodies being thinly covered with earth.

The variety of coffins found at Niffer is very great. There were coffins made of palm-wood and coffins made of terra cotta or burned clay. There were graves made of bricks both burned and sun dried, and there were large brick vaults containing several skeletons mingled in confusion. Bodies were also placed in caskets of wicker work, and even wrapped in reed mats. Occasionally skeletons are found embedded in the earth with no trace of an enveloping coffin or shroud of any kind. Notwithstanding a variety and diversity of coffins at Niffer, more than nine-tenths of all the graves that have been opened are of terra cotta. The terra cotta coffins are of remarkable diversity of form and finish.

Of all the terra cotta coffins the most elaborate is the sarcophagus, or the so called slipper coffin which has nowhere been found of very high and undisputed antiquity. It has been regarded to be of Parthian origin and was more commonly used, so far as indications go, in Parthian and Sassanian times than at any other known period of history.



It is difficult to collect satisfactory data to fix the time of the adoption of this style of coffin in Babylonia, yet I cannot doubt but that this type of coffin, which was so highly embellished in color, mould, and enamel, during the Parthian ascendancy was used in a plainer form and finish in Babylonia long before the Parthian conquest of the country, and I still hope to obtain indisputable proof on the point. The plain glazed sarcophagus was undoubtedly used for at least several centuries before the richly moulded and beautifully enamelled sarcophagus of Parthian times attained its perfection in ornamentation and coloring. The plain gray-colored sarcophagi are far more numerous than the glazed and decorated coffins and continued to be used as long as the enamelled sarcophagus was used.

The Babylonian sarcophagus from its resemblance to a gentleman's slipper has been styled the slipper-shaped coffin. It is made of a pale straw-colored paste of clay mixed with straw, and perhaps owing to the scarcity of fuel, was imperfectly baked, and became very brittle through lapse of time and oxidation in the destroying earth.

At its head was a large oval aperture for the introduction of the body. The aperture was closed with a lid of earthenware sometimes plain, sometimes rudely ornamented with fingermarks, and in one instance decorated with a rude lion's form in low relief.

A small opening at the foot probably served for the insertion of the hand, or a rope fastened to the feet, by which the lower extremities could be drawn into their place in the narrow cylindrical body of the coffin, into which the feet and legs could not be forced from above, in case of such fragile material as those half baked coffins, without destruction to the coffin.

The inner surface of the sarcophagus shows the impression of the frame or form of reed matting on which the coffin was fashioned.

One of these slipper shaped coffins possesses the most perfect beauty of form about the head that I have ever seen in any of these coffins. In fact, every line and curve from head to foot is full of grace and beauty, a delight to the eye and a conscious joy to the aesthetic nature and though it is broken away somewhat at the foot, its simple beauty compelled me to preserve it for the instruction and delight of many others.

The enamelled sarcophagus, which was usually decorated with four panels, marked with elaborate borders of twisted rope and rosette ornament, was allowed to dry, and afterwards received its final decoration by the addition of a stamped figure of the human form in high relief to each panel.

The coffin was then stood on end, generally the head, as shown by streaks and the flow of the glazing paste, and in this position it was baked. The color of the enamel was blue, but after long burial in the earth quickly fades to a bluish green, on exposure to sunlight and heat. One gray sarcophagus, decorated with the same male figure, with sword and short tunic over a long shirt, four times repeated in as many panels, contained the skeleton of a man as shown by the accompaniment of dagger-blade of corroded metal, apparently bronze. Besides the weapon, only the skeleton, a vase for water, with a drinking-bowl inverted over its mouth, and a shallow

bowl containing date stones, and other decomposed remnants of food, were found in this sarcophagus. The occupant of the grave was plainly a man.

A richly ornamented sarcophagus, finished in blue enamel and decorated with six human-headed bulls in two long narrow panels contained the partially decomposed skeleton of a large man. That the body was the body of a man was shown by the oxidized remnants of a broken weapon, and the lack of female ornaments.

The human-headed bulls, which adorned the exterior of the coffin, are a perfect representation, as seen in front, of the monuments found by Layard at Nineveh, and evidently belong to a period of strong Assyrian influence in Babylonia. Aside from its unique figures, this sarcophagus is perhaps the richest and finest in its general decoration of all the sarcophagi that have been discovered at Niffer.

Aside from the two sarcophagi whose decorations and contents show them to be the graves of men, no sarcophagus decorated with the human male figure has been found, while sixty-two blue enameled sarcophagi decorated with female figures in human form, have been found and examined by me, and in nearly all of these sarcophagi some remnant of female adornment, as jewelry, beads, bracelets, bangles, or implements for sewing, spinning, embroidery, etc. were found to indicate the sex, thus showing that the external decoration of the coffin was a trustworthy indication of the sex of the grave's occupant.

One yellowish-white sarcophagus, decorated with four female figures, set in four separate panels, contained articles of a woman's jewelry. Sixty-three sarcophagi, decorated with the female form, and containing some ornament of woman's wear, or some implement for her handiwork, clearly prove that the sarcophagi, decorated with the female figure, were in every known case used for the burial of women. Men of the same period were generally buried in the plain gray or unenamelled sarcophagi. Women were also sometimes buried in the plain gray sarcophagi. As a monument in the history of funerary architecture and art, these sarcophagi will be of inestimable value to the earnest student for all future generations of men.

It seems to be true that the unenamelled clay-colored sarcophagi, whether plain or decorated with rope ornaments or simple beading, were used without distinction of sex before the art of glazing was applied to sepulchral decoration, and therefore that this particular form of coffin was used in Babylonia before the glaze or enamel was applied to their decoration in Parthian times.

While it must be confessed that at Niffer there has been found no sarcophagus, or so-called slipper coffin, which can be assigned to a fixed date of great antiquity, yet we know that in many instances plain gray sarcophagi, lying several feet directly below enamelled coffins, were of considerably earlier date than the better known enamelled sarcophagus of Parthian and Sassanian times.

Next to the more elaborate sarcophagus in point of interest was a form of clay coffin, which from its resemblance to a bath tub, we may call the bath-tub coffin.

In shape it is a box with one end rounded, while the other end has square corners. Unlike a bath-tub, its rounded end does not incline upward, but is vertical. Though they differed greatly

in size, the average bath-tub coffin was less than four feet long, about two feet deep, and from fifteen to eighteen inches wide. It received its corpse with the lower extremities treated like a folding door, with hinges at hip and knee. This form of coffin is of high antiquity.

The lid of the bath-tub coffin was sometimes made of plain gray earthenware like the coffin itself. Lids for the coffins were however often made of palmwood, and in more than one instance, were found to have been made of reed matting, as was clearly proved by the imprint of the wood's fibre, and of the matting on the under side of the water-hardened clay that once pressed upon those temporary lids of wood and mats.

The perishable wood and matting had long since decayed and sifted their ashes over the rotting bones, while the covering earth grown compact and sodden through pressure and lapse of time, still preserved in minutest detail the structure and fibre of the rough hewn wood, and the same coarse matting, which the marsh dwelling Arabs of Babylonia weave to this day.

Before it was used for burial, one bath-tub coffin was broken and bound with many coils of the same kind of rope which the Arabs make at the present time, from the leaves of the date-palm. It was afterwards besmeared with bitumen to keep the rope in place, and preserve it. The rope has entirely disappeared, but the bitumen, in which it was embedded, has preserved its imprint, and shows its twist, and the structure of its fibre in minutest detail.

At the head of one bath-tub coffin belonging apparently to the sixth or seventh century before the beginning of our era, were found three jars containing articles of jewelry and clothing. They appear to have been the property of a jeweler, and to have contained many articles of great value, such as pearls, precious stones, necklaces, earrings, and nose rings, and rings for the fingers, seal cylinders, linen and woollen stuffs of coarse and fine texture.

There were 17 seal cylinders of medium and small size, only one of them containing three lines of inscription was inscribed at all. One cylinder, of red jasper, still retains its bronze mounting.

A. is a nose ring, mounting five pearls, one of which crumbled into many pieces on exposure to air and handling. Many pearls, some of them of great size and value had crumbled in the jars, others fell to pieces when removed. Only the four belonging to the nose ring are left to the excavator's care.

B. shows a pendant and several beads of the class of low grade amethysts, jaspers and agates.

C. is a pierced pyramid of dark brown hematite 3/4 inch long with three skeleton-like human figures, an ox and several curious symbols.

D. is a collection of low grade agates amethysts, jaspers and carnelians.

E. is a dark brown hematite pendant showing a mounting in bronze.

G.G. Several Egyptian scarabaei.

H. is a pair of iron tweezers, possibly for jeweler's use.

J. is a red jasper cylinder. It is engraved with two winged human-headed lions, placed back to back, and rampant toward a four-winged diety. The mounting is of bronze, and was found still connected with the cylinder, but unfortunately broken off afterwards. The lower end shows the pivot still in the hole. As there appears to be a shoulder left on the pivot (although it may be oxide) the round collar below the ring seems to be in position as seen in the sketch.

K. is a bronze bracelet.

L. is a duck, possibly of chalcedony, pierced to be suspended as a pendant.

M. is a carnelian, showing a headless human figure in a sitting posture.

N. is a small tear(?) vase of good form, fine texture, and excellent workmanship. Three of these beautiful little vases were found in two of the jars.

F.F. are of bronze and in form resemble brooches. They seem however, to have been earrings in proof of which two exactly alike were clasped together. There are 28 of them in sound condition and several in a more or less fragmentary state. The woven fabrics are so completely decomposed that only a residue of extremely light ashes, which a puff of wind might carry away, remains, but this is enough to show the structure and fibre of the fabrics which clearly show the warp and the woof, the twist of the wool, and the linen thread, and the color of the woven fabrics which are now creamy white and dark brown and such appears to have been their original color. The earrings were wrapped in linen and this is shown by the fibre of the linen still adhering to several of the corroded metal earrings.

Immediately above this coffin near the surface, were found two beautiful blue bottles of glass of extreme thinness and lightness belonging to Arab times. It is a marvel that they should have remained in sound condition so long and perhaps a greater marvel that they should have been seen and rescued by the pickman, who was with vigor and apparent recklessness cutting through the soft earth, for they are as thin as a chemist's beaker and without protection were covered by the layers of earth which threatened to crush them while it preserved them from destruction.

The box coffin differs from the bath-tub coffin in two respects first, its corners are generally square, and second, its height and width as compared with the bath-tub coffin are reversed, the length of the two types being about the same. The box coffin was about two feet wide and fifteen inches deep, and best accomadated its occupant by placing it on one side and folding the knees as in the bath-tub coffin, which received its guest lying on the back with its knees drawn upward toward the lid.

The evident reason for this diversity of arrangement of the bodies is found in the different form of the coffins. In the box coffin the width is greater than the depth, while the depth of the bath-tub coffin exceeds its width, the two somewhat similar types being of about the same length, and the depth of either being about identical with the width of the other.

The box coffins were often without lids, and were then inverted over their occupant. In one instance a box coffin was inverted over the body of a medium sized woman, placed on a mat in

the bottom of the grave. The coffin was three feet ten inches long, two feet wide, and one foot three inches deep.

To adapt the body to the dimensions of the rude coffin, it was laid on the left side and the knees were sufficiently drawn forward and upward towards the chin to bring the extremities within the short coffin.

Since no earth had fallen into this coffin, the skeleton with fragments of the grave clothes lying in folds over the bones was easily traced. The clothing was an outer garment of woolen material woven like the coarse abba worn by the Arabs today; the inner garment was linen. The head was swathed in woven fabrics, and the feet were probably bare in this and all other graves.

Toward the foot of the coffin was a well-made work-basket of some stiff grass. Its lid was fastened by three woolen cords ending in neat tassels, and tied in the lover's knot. (double bow knot)

The basket contained the blue enamelled vases of graceful form and a long bronze hook not unlike a modern crochet needle, for knitting loose fabrics, of which beautiful fringed and tasseled specimens were found in jars placed at the head of other graves, in which the same implement was also found to testify to the use of the corroded implement in the grave under consideration. Several bronze hooks of similar form were found in other graves of women.

The Jewish casket was another distinct form of coffin. It was a simple shallow box, rounded at both ends, without decoration of any kind, and open from end to end. Its average length was six feet, its breadth and depth respectively fifteen and six inches inside the measurement. Its lid was composed of two pieces of terra cotta joining in the middle of the coffin's length. The lid had an upward curvature of about six inches, thus doubling the available depth of the shallow coffin.

In several instances brick vaults were built about these caskets to protect their weak lids from collapse, and then the earthen vessels, containing food and drink, were placed outside the casket within the brick vault.

A cuneiform tablet of the Persian period, with a line of Hebrew scratched on its edge, was placed over one of the enclosed caskets, leading to the final conclusion that this form of coffin was of Jewish origin, and as far as our discoveries go, this form was used by the Jews alone.

Another type of terra cotta coffin, in the form of an elliptical soup-tureen, is occasionally found at Niffer. Some of them are round bottomed: some have a foot to rest upon. The rim is elliptical in form. Their major and minor axes average about three and a half and two and a quarter feet respectively. So far as reliable traces have been found, these coffins had lids of palmwood, which has perished.

The bread-tray coffin was used at Niffer for the burial of infants. In form it was like an old-fashioned bread tray, having a flat bottom of elliptical form, and gently sloping sides about five inches high. Its major axis was about twenty-two inches. Lids of terra cotta covered the little bread-tray coffins.

Various forms of household vases, such as wine and oil jars, storage vases, and water firkins were often used for sepulture both in very early and very late times, and indeed in all ages. They seem to have been generally used by the poorer classes. Adult skeletons are frequently found in jars so small that the body could only have been introduced into the jar piecemeal after dismemberment.

Sometimes the large, wide-mouthed burial urns of the same size were placed end to end and sealed with bitumen or clay so that the enclosed body lay in a horizontal position. This is a very ancient form of burial.

In an ancient grave twenty feet below the floor of a Jewish house, still adhering to a man's skull, was distinctly observed a lock of hair, colored with henna, as is customary among the Arabs, and with the Persians of today, who worship at the shrines of Kerbella and Nejeff, sacred to the Shiite Moslems. Kerbella is about eighty and Nejeff sixty miles from Niffer.

It is interesting to notice that the pilgrim to Kerbella, and Nejeff, in Babylonia, perpetuates the custom of dying the hair and beard as practiced by the devotees to Bel's most sacred shrine in the early ages of unwritten history.

Like many other tenacious customs, this custom in that part of the world, where no change ever comes, is undoubtedly as old as the hoary mounds at Niffer, and as undying as the prejudices of the human race.

Not only do customs remain unchanged through the changing centuries, but the ornaments used by the middle and poorer classes four thousand years ago and more, are of precisely the same character as the Arabs of Babylonia used to adorn their persons with to this day, as is abundantly shown by the articles of personal adornment which are still found preserved in the ancient graves of the ancient Nippur.

### The Crescent.

A lamp of bronze and a bronze crescent closely resembling the crescent of brass worn at the throat by cavalymen in the Turkish army of today, were found in a grave of unknown date. The crescent was pierced by two holes, by which it was fastened in place to the collar of the coat or outer garment.

Both crescent and lamp were found together with three broken tablets in a small vase near the decayed bones as mentioned above. There can therefore be little doubt that those articles were placed by pious hands in the grave of some one, who, in the unknown ages of past history, died and was buried at the ancient Nippur.

Though it is incapable of definite proof; yet it is not improbable that those were the relics of some loyal soldier of the country, nor is it impossible that the use of the crescent as a military emblem, was appropriated, or perhaps inherited from the primitive inhabitants of the land, over which the colony of Byzantium, extended her sway and again transmitted in regular succession, not through ties of blood, but to the bloody conquerors of the land, where it originated.

Likewise, the double-headed eagle, which was for a long time regarded as the bold creation of the Byzantium artist, has only recently been discovered to exist in two instances on the prehistoric monuments of Asia Minor, which are now ascribed to the Hittites, from whom the ancient Byzantines through intermediate sources may have borrowed the emblem to transmit it to others with no thought of claiming it as their own creation.

There is nothing to prove a high antiquity for the grave. It may or it may not antedate the beginning of our own era. Its position at a low level determines nothing of value to know, for it was placed in the border of a mound, near the level of the plain, where it might have been made at any time since the building of the mound until the present time.

Whether the crescent came from Byzantium or elsewhere it is probable that it never ceased to be used as a sacred emblem or as an ensign of civil and military authority in Babylonia which I believe to be its true home. On all great occasions both religious and secular, it is used today either in connection with the star or without it. In purely religious ceremonies the star is generally wanting.

## Ramazan.

Ramazan or Ramadan, the great annual feast of the Mohammedan world, is observed through the entire 29 or 30 days of the sacred month of the Mohammedan calendar. The fast, which corresponds to Lent in the Christian world, begins each morning at day-break and ends at sunset. During the day all able bodied and healthy persons are forbidden by religious law to eat, drink, smoke or indulge in any pleasure. Since the months are measured by lunar time, it happens that each month begins and ends in each successive year eleven days earlier than it began and ended in the preceding year. Hence, in thirty-three years time, any given month or festival of the Mohammedans year, makes a complete backward cycle of the seasons. When Ramazan falls in winter time, the fast is easily borne, but when it occurs in mid-summer, laboring people suffer great inconvenience and yet the laboring people observe the fast more scrupulously than the wealthier and idle classes. Only sick people and travellers are exempt from observing the fast.

Our laborers, worked as usual through the month of Ramazan neither eating, drinking, nor smoking and the standard of efficient labor was maintained with no loss in quantity or quality of service for full ten hours each day. The weaker men would show evidences of faintness, at night, but the stronger ones betrayed no sign of exhaustion; yet it was sometimes plain to see that pride assumed a show of indifference to weariness, and their patient endurance of toil, heat, hunger and thirst, all at the same time without a murmur of complaint, was sometimes glorious to behold. Peevish natures were more quarrelsome than usual during the fast, while the more earnest ones exercised more than usual patience and charity under trial.

On the appearance of the new moon, which marks the beginning of the succeeding month, the fast is broken and the following day is given to festivity and rejoicing. The festival is called "Bairam" and was doubtless instituted to imitate Easter. It should continue only for a day, but is frequently prolonged to a second or third by common consent, not officially.

On that day, congratulations on the successful accomplishment of the sacred fast are exchanged by Moslems and are paid by Jews and Christians on Mohammedan officials, and their friends, among Mohammedans.

Forty days after the completion of Ramazan, occurs the great religious festival of the Mohammedan year, called "Kourban Bairam" which means the "Festival of the Sacrifices." It falls on the tenth day of the month, called Zi-l-hijje, in the Mohammedan calendar, and this date corresponds to the 4th. of June of our era.

By the annual slaying of sheep, it commemorates the sacrifice of the lamb, substituted by the Almighty, offered by Abraham on Mt. Moriah, in place of his son Isaac. For this sacrifice, the males of the flock, the fatlings two years old, and without blemish, are slain. All good Moslems of means sufficient to raise or buy a fatling, are required by custom, and by religious practice, to slay one or more unblemished male fatlings as an act of piety and faith. The flesh is not burned, but in excess of family needs for the festival day, is given to the poor, and in this manner shows the nature of the sacrifice, as practiced even to this day by the Mohammedans.



Being as much a matter of custom as religion, and calling for no special rite or ceremony of faith or practice, beyond the feeling of gratitude, which each one may express in his own way to the Giver of all good things, for the countless mercies he receives from above, this is a matter in which I, though born in Puritan New England, and descended from Roger Williams, can and do respond to the custom of the land.

For the third time in three consecutive years has the expedition slain two, three and four sheep at one time to meet (*sic*) out in proper measure to the foremen, and assistant foremen of our gangs, a feast day morsel, while each basket-carrier received a present of one day's wages, in cash, in place of the feast we could not easily provide for such a multitude. The foremen and their assistants from Hillah, rendering extra services on all occasions of need, received full wages on the holidays as at other times, and by this treatment the expedition lost nothing in a pecuniary way, while in good will and devotion it gained much in many ways.

After the gifts had been made and the festival salutations received, a band of women and children came to the castle where they performed a dance accompanied by one of their characteristic songs, with clapping of hands. They were dressed in their holiday clothes, bright reds and greens among unfaded black robes. The colors were for the most part bound around the heads, but some of the children were rainbow hued all over.

We were soon ready to start on our ceremonial visits to the sheikhs. As we went through the court of the castle, the workmen had assembled and offered their good wishes for the day. We walked across the plain to the west of the castle, past the low dusty mounds that are supposed to mark the site of the Necropolis, to a point near where we had landed on our arrival from Hillah. Here we found one of the little native boats waiting to convey us through the marshes. These boats are made by fastening rolls of reeds closely to ribs made of tree twigs, bound in bundles. No nails are used, but everything is fastened together with cords and thongs of palm-leaf. Over the entire outside is spread bitumen until it makes the little craft water-proof. We crossed the great marsh and soon reached the domain of Hamid-el-Birjud. We were conducted to the guest-house --- a long tunnel-like apartment built of reeds in the same way as our workmen's houses, by no (*sic*) means of large arches, made by binding together two bundles of reeds and bringing the ends to the ground, and then covering all by means of reed mats. These mats are made by splitting reeds and spreading them out to form a thin flat band about an inch or an inch and a half wide. A number of these bands successively woven into this woof by passing under, then over each adjoining band or two. When the edge is reached, the ends are turned under and woven among themselves. The floor is covered with mats and rugs, laid down where the visitors sit in long lines, while the Sheikh occupies a more prominent position. Being guests of honor, we were invited to sit on mattresses and pillows covered with brilliant colored calicoes made in Manchester for the Arab market, or native woolen cloth in interesting patterns of great antiquity. Near the door stood a couple of large water jars or firkins in frames, and in the center of the room was a large fire-place with many pots of coffee. When a visitor arrives, if he is an Arab and worthy of honor, he kisses the Sheikh on the lips or cheek, then on the right shoulder. Europeans are taken by the hand, and the hand offered is afterwards carried to the breast and forehead. When seated, coffee is offered to the guest a small spoonful of bitter, unsweetened

coffee mingled with myrrh, in a little blue and ornamented gilt cup, made in Vienna to suit the Arab taste. This is repeated two or three times in quick succession. Conversation is carried on to a limited extent. Most of the guests sit without saying anything, perhaps smoking cigarettes. Although the Sheikh himself smokes almost continually he does not offer cigarettes to his guests. At Sheikh Hamid's we were offered a dish of rice cooked in milk, served with melted butter and sugar --- a very palatable dish and served in a large, white ornamented bowl. We were furnished with tin spoons, evidently quite new, and perhaps purchased in anticipation of our visit, which terminated in about one hour.

At Sheikh Abud-el-Hamid's, the next place we visited, the guest house and fittings were newer and better. Here we were also offered food, but declined. A bowl of boiled mutton and a dish of rice were placed before the Sheikh, who bared his right arm, above the elbow, washed his right hand, and seated himself on the floor with his simple feast before him. Alternately he tore bits of meat from the bones, or rolling bits of rice into balls, he placed them in his mouth with his fingers, for like all true Arabs, he disdains the use of knives, forks and spoons. When he had finished --- he ate from the same dish with one of his favored guests --- the bowls were passed down to the lower orders who soon dispatched the contents.

Abud-el-Hamid is a man of perhaps 48 years, large in frame and heavy of build, with a determined look that hints at the ability that has won him the presidency of five sub-tribes of Arabs. Both Abud-el-Hamid and Hamid-el-Birjud came all of the way to our boat landing to see us on our way.

It was a long distance through narrow creeks and channels to Haji Tarfa's domain. We were now in the heart of the great marsh which makes islands of all these places, now well filled with water but in the dry season, a pestilential mud-bed full of decaying plants and the source of poisonous winds. The wind blew over the marsh and gave the air a pleasant freshness quite unlike the hot blast we have on shore. It was afternoon when we reached the landing place at Sheikh Haji Tarfa's. There was little indication of the importance of the place. Gardens with tall trees, willow lined streams, and in the back ground round and square towers surrounded by a wall with saw-toothed battlements, all covered with a light brown plaster of clay. We left the boat and walked up past a few reed huts to the long low guest house. Here the host had built a summer pavilion at one end by spreading mats on a frame of poplar saplings under and around a fine mulberry tree enclosed with a lattice of reeds. Here we found a large assemblage of men, but the host was at his siesta in the sacred precincts of his harem, whither no man may enter nor is ever invited.

We had been sitting but a few minutes when we heard a monotonous song, now so familiar when the Arabs join in work or recreation, and soon saw a large party approaching armed with guns. They came up to the platform before the guest house and there performed the "Hosa" in our honor, singing a chant varied to suit the words. Each sentiment is sung a number of times, while the men with their guns held muzzle downwards, performed a curious sort of dance -- a trot in short steps for ten feet or more, then a turn and trot in the other direction much like a shaker dance. Now and then one of the number stops the singing, then gives out a new set of

words hopping up and down as he does so. Immediately the crowd takes it up and continues the animated dance as before to the new words.

Presently Haji Tarfa clothed in a black abba trimmed in gold lace at the neck, and the usual pattern blue cloth over his head, fastened by a wreath of brown woolen yarn, tied in knots and arranged in links. Everyone arose as he entered the house. Haji Tarfa is held in great respect throughout the country. His reception of us was most cordial, and after two hours spent in pleasant and animated conversation, we bade adieu to Sheikhdome and returned to the castle as the sunset glow disappeared behind the mounds and the stars one by one appeared in the fading twilight.

The monotony of our daily life at Niffer knew no interruption for many long months of watchful care and unceasing toil, but a visit one bright beautiful morning on a festal occasion to Suk-el-Afaj, our nearest market village, came with all the refreshing influences of a hard earned holiday. We walked to the nearest village towards the southeast, and there took a boat. It was the same place where we disembarked after our trip to see Haji Tarfa. Today we had a large body guard, two boat loads, for a company of our Hillah people went with us.

We were much interested in the different forms of plant life which fills these great marshes. The small, white, petal winged plants resembling the water lily, from one to fifteen inches in length, float upon, and in some places almost cover the surface of the water. There were tall flags, ten or twelve feet high, with their single great blades rising straight from the water, or bending gracefully in the wind; the giant reed that resembles the bamboo in leaf and stem, although neither so tall nor thick. Some of these reeds had feather like tops, almost as fine and graceful as an ostrich feather, while the flags bore long slender cat-tails. A plant shaped like a water lily, with a flat oval leaf of brilliant green above, shading to a deep dull liver color beneath, covered a part of this great marshy district, while other portions were carpeted with a brilliant golden yellow flower not unlike our buttercup of New England.

We landed close to a large grove of palms which can be seen from the castle, and from this landing the whole of the great mounds of Niffer were visible in the dim distance. The ground here was covered with a beautiful green grass and presented the appearance of a lawn. We went through the palms and were soon in a district that had lately been first robbed and then burned by the Daghara Arabs. The people were busy rebuilding their reed huts. Here the streets were bounded by fences of reeds so closely woven as to form tight walls, and in a way, give privacy to the enclosed dwellers. We went into town behind the Bazaar, our guard seeming to think it advisable, for we were the first Europeans that had visited the market for many years. Beyond the Bazaar we came to a wide canal where a Kuffah ferry kept up communication with the road to Divaniyeh. We were conducted to the house of the principle merchant, who acts as the head of the village, and entertains strangers, and we were soon seated on the rugs and cushions of state in the shadow of the mulberry tree. This place proved most pleasant, and our host soon appeared --- an old man whose hair and beard were dyed with henna, while his eyelids were blackened with antimony. He was dressed in the usual blue Kerffieh (*sic*) confined with thick cords of brown wool and wore a dark blue robe striped with lines of yellow. We were first served coffee, then tea flavored with cinnamon, followed by luscious watermelon, muskmelon, fresh figs, with

the usual acidulated milk and bread. Although we could only eat a morsel, compared to the plenty set before us, our numerous following made short work of it. Our host was very hospitable and sat cutting melon and urging us to eat until we could eat no more.

We sat under the trees and prescribed for the sick, halt and blind brought to us. This was the time for the ceremonial bleeding which the Shiite Moslems undergo in honor of the approaching festival, and Hassan, our cook, bared his arm for that operation while at Suk-el-Afaj.

On the return journey, we passed some very curious looking granaries. They were made by enclosing a space with a mat, forming a big cylinder in which the grain was stored, then the top was covered with a thick layer of mud, which bakes in the sun and forms a crust over the granary.

The walk to the castle was most trying. The earth was so encrusted with salts that it resembled a lime-kiln, and a furiously blowing gale, scorching hot, prevented the use of an umbrella, making the reflection from the ground painful. However, a sharp walk, followed by a bath, made us feel better than before, and helped to make one of the hottest afternoon we have ever had, bearable.

The so-called Persian Passion Play is not enacted among the Afaj people, nor, so far as I know, is it anywhere formally enacted among tent-dwelling Arabs, yet it is a day of mourning and lamentation in these parts and is of necessity a holiday at Niffer.

According to the Mohammedan era, the 10th. day of the first month of the year (1312) is the month of Moharren (*sic*) and is therefore the anniversary of the death of Hussein of sacred memory to every earnest follower of the Shiite faith.

Our Hillah people observe the day by joining their co-religionists in their camps round about us to celebrate the virtues and lament the untimely death of Hassan and Hussein, the two sons of Ali, the grandsons of the illustrious founder of the Mohammedan religion.

A festival altogether new to us in the experience of our camp life at Niffer, and yet a common incident in the life of the Arabs, was seemingly much enjoyed by our desert neighbors and friends. We were awakened early in the morning in time to see the old crescent moon fading in the gray dawn just before the rising sun bathed in a flood of morning light the wide spreading mounds of Niffer.

It was Sunday the 23rd of September, and according to the religious custom of our Arab people two of the boys of our camp, were to be circumcised. The festivities began the evening before, and during all hours of the night the people made merry with sing and dancing. When the hour for the ceremony arrived, Ismail, the foreman of one of our gangs of workmen, sat upon the ground and he held the victims in turn, while directly in front of him, sat the barber, who in lieu of a priest officiated, using a sharp stone, which in this case was a saw-toothed piece of black obsidian, perhaps an ancient knife; this implement being still used among many of the Arab tribes. A number of the men of the company held a blanket stretched over the group hiding the spectacle, while the rest of the people gathered around permiscuously (*sic*) mingling their articles of faith with songs of encouragement.

When the ceremony began, the blanket was gently waived up and down, and with the clapping of hands, the men sang in a loud chorus “Sulla Allah Mohammed” while the women, to drown the screams of the subjects sounded their shrill “Tahleel”; and judging from the resistance offered, the boys strenuously objected to being gathered into the fold of Islam. All day there were singing, shouting and rejoicing, which culminated towards evening in a grand jubilee when the men came home from market with supplies for a great feast in honor of the glad occasion.

During the day we had a visit from Said Ali who, though a stranger, made kindly inquiries as to our health wishing for us the possession of all earthly blessings, including riches, fame and honor. After this peroration and introduction, the self righteous man unblushingly stated that he wanted a donation of five Turkish liras, equivalent to \$22, towards defraying the expenses of his son’s wedding which he said would cost 50 liras. This high toned beggar, like others of his class, depending on his holy office as descendant of the Prophet, claims the right to assess people of wealth and influence to meet his expenses. Our commissioner Saleh Effendi, who acted as interpreter on this occasion of neglected privilege and refined charity, was much incensed with the holy beggar and replied that he would himself marry if his wealthy friends would defray his expenses.

### Arab Wars.

In the last week of May 1895 an unusually severe war was begun and finished in the immediate precincts of Niffer, even within sight and sound of our camp and excavations. The reports of the antiquated flintlock and the double barreled shot gun fell upon our ears without cessation and with scarce perceptible diminution of sound by day or night, for three successive days and nights of stubborn attack and as stubborn resistance.

Open firing began Sunday night under shelter of darkness and continued until midday of Wednesday, when a truce was called and a treaty made and ratified, to be broken on the first slight provocation, or convenient opportunity. As usually happened, the strife was for territory.

The Behahitha, Es Said, and other small tribes, were the aggressors. The El Henza (*sic, Hemza*) Arabs, led by their Sheikh, Abud-el-Hamid, the president of the five confederated sub-tribes, and until then our only true friend, except Haji Tarfa, and our bulwark of defence, were besieged by double their numbers.

The Behahitha, and their allies marshalled 800 guns, and had a large reserve force to replace and refresh their comrades during the long and wearisome battle.

Throughout the whole length of the wearisome conflict, Abud, with only 400 warriors, without rest, change or reinforcements, fought with steadiness, courage and desperation, and in the end won a glorious victory, which much strengthened our own position among these turbulent, treacherous and covetous semi-savages.

Every trick, wile and artifice was tried in vain to overthrow Abud as the Sheikh of the El Hemza Arabs. Abud stood like a wall, firm and unyielding, through all the sallies and assaults, the hopes and the fears; the ups and downs of the raging strife, now hot, now cooling for a fiercer struggle, or giving way to some ambushade and pitfall into which the sturdy, wary warrior was not drawn for a moment of time.

Every true friend of the expedition had reason to feel profoundly grateful for the issue of this petty and inhuman warfare. Had Abud been overthrown, much trouble would doubtless have come to the expedition in many ways, and from many sources.

As usual the killed were carried away to be buried in the sacred soil of Nejeff, the site of Ali's distress, death and burial, more than 1200 years before. Great numbers of corpses are sent to Nejeff for burial and Moslem pilgrims from all parts of Persia and India journey thither to die, it being one of their articles of pious faith that any Moslem buried within sight of the dome of Ali's tomb is sure of salvation.

The wounded were brought to us to have their wounds dressed, and to those who could not be brought to us, carbolated vaseline was sent on application, and thus in some slight degree did we win the confidence and good will of friend and foe alike by these unpaid ministrators (*sic*) in relief of human suffering.

About the beginning of July 1895, a party of Behahitha Arabs seized a castle in the environs of Niffer toward the westward from the mounds. The El-Hemza Arabs began to gather to prevent

further fortifications being made until a sufficient force could be collected to expel the captors, or to conduct a successful siege against them. Haji Tarfa joined the El-Hemza Arabs and presented an ultimatum to the usurpers. The ultimatum demanded instant evacuation of the fortress. The demand not being complied with, Haji Tarfa ordered a general muster of his warriors for service in the field, and despatched swift footed messengers calling upon all his numerous allies to unite in repelling the invaders, who, unless driven back would gradually possess all the territory of the El-Hemza and Afaj Arabs.

The next day witnessed a great assemblage of warriors from many quarters of Afajland, and adjoining regions. Like processions of ants, they came and went, and straying, and rambling, over the country, loosely following their standards, yet observing no special form or order of march. Each tribe had its own ensigns. Some were white, bordered with crimson, some were green, and some were red trimmed in a diversity of ways, but all displayed the crescent either alone or in connection with some other device. This will be interesting in corroboration of what has been said of the bronze crescent found in a grave of comparatively early date.

Among other allies came one Atiye, a powerful Sheikh near Daghara. This Sheikh controls the water supplying the people who had occupied the fortress. He threatened to cut off the water supply from those people and cause them and their flocks and herds to perish from thirst, unless they should instantly surrender the fortress. The fortress was accordingly surrendered in the afternoon of the same day, and the assembled hosts dispersed in the same straggling, tumultuous manner as they had gathered a few hours earlier in the day, and almost instantly we felt that we breathed a freer purer atmosphere. The threatened war was safely passed for that time at least, and in this unsettled region of ancient civilization one regards only the present moment, nor takes thought for the future, glad even that tomorrow's destiny is veiled in obscurity from his already overburdened knowledge of the exciting past and present.

Some of our basketmen were mustered for warlike service, which, materially thinned the ranks of our laborers for one or several days, according to the circumstances and exigencies of the war.

The pomp and glitter of war-like demonstrations and the matching of forces in successful arbitration having proved effective, all hands were at length found in their respective places in the trenches and after three days of successive interruptions the work moved on again as usual to be interrupted at intervals by fresh levies of warriors from our basketmen. Sometimes those levies were made for one day sometimes for a week. Generally a war was fought to a settlement within a few days after open hostilities began although a kind of gorilla (*sic*) warfare might exist for many weeks or months.

From Haghan to Lamloun all the surrounding Arab tribes, far and near, made a solemn compact to resist the Turkish troops, that it is supposed the government is about to send into this region to collect the arrears of taxes unpaid for several years.

The bitterest of enemies for the present moment laid aside their tribal warfare to unite in sympathy against their common foe. In all the length and breadth of Afajland, there was no battle cry or sound of war. A profound peace settled down over all the region about us. It was like the Sabbath in a country village of puritan New England. People went to and from tribe to

tribe and from tent to tent, and wandered over the desert at will. There was no discord in all the land, and their goings and comings were like the processions of earnest pilgrims on their pious errands and missions of peace.

One longs for the far-away time when the new dispensation shall establish upon the ruins of temporarily suppressed warfare a universal and everlasting "Peace on earth, good will to men".

This self-same defiant, covetous, treacherous and blood thirsty throng of plunder loving Arabs, still boasts of annihilating a battalion of troops, commander and men, sent into these marshes some twenty five years ago, to collect regular arrears of taxes.

Within the last six months of our stay at Niffer, the two Sheikhs Abud-el-Hamid and Hamid-el-Birjud pledged to our support by solemn oaths, violated their written pledges and every honorable sentiment of right. Until mid-summer of 1895, Abud-el-Hamid, in his stolid way, was a wholesome restraint against the more wily Hamid-el-Birjud in his over reaching designs of evil and mischief. But Abud had since broken every pledge of honor and resorted to Arab tactics of deceit, to threats, and to show of violence to get, gain or force from us some unfair advantage, which he would be quick to follow to further discomfort us.

These Arabs regard it as their inalienable right, established by precedent, to receive a larger income from us without reference to an equivalent from them. The Sheikhs believe that the subscribers to the expedition are willing to pay the larger sum and would even increase it if asked to do so. According to their notion, the director does them a great wrong, and Arabs know but one way to right a wrong. No one but myself knows, or can know, what it has cost in mental and physical wear and waste to accomplish what has been accomplished in reducing the expenses for the Arab guards, and at the same time to keep the full number of guardsmen on duty, for I have insisted on a nominal equivalent for everything, great or small, that has been paid into the hands of the Arabs, whether Sheikh or humblest private person. Any man who attempts the same course will find himself in great danger in many ways and at many times. If any one should adopt a more liberal course of payment, he would find his path smoothed for a very short time only. No increase of payment would long satisfy these greedy Sheikhs unless it were often repeated in increasing ratio. To yield now would soon break up our work. We have fought too long and too hard to willingly see any part of the victory turned into a defeat.

For about one year and a half the sheikhs paid the guards the stipulated price of three piasters each per day. They furnished six guardsmen and received payment for ten, thus receiving four tenths of the regular payment as their personal part of the compensation for securing protection to life and property.

The sheikhs have bluffed their own people into receiving a lesser compensation and retained one-half of the weekly payment for themselves. Having successfully brow-beaten their own people, the idea of additional gain from the expedition was logically suggested and adopted in the most faithless manner. The attempt failed as every other trick has failed to do us serious injury, but to maintain the life, the integrity, and the dignity of the expedition has required all the tact, patience, and courage at our command, and more than this it has often required the use of time and talents that ought to have been given to other matters.



It is a universal belief among the Arabs that all ancient sites are today the habitations of evil spirits who sleep by day and roam about at night, inflicting evil on any impious mortal who should dare to trespass on the domains of darkness and disorder. The once populous mounds of Babylonia were at first deserted, then avoided, and finally abhorred by the superstitious people of the country, who have without knowing it preserved much of the idolatrous superstition of the ancient Babylonians.

It is the unshaken belief of the people that the ancient mounds filled from time immemorial with the graves of dead men are become the habitation of evil genii, and are the abode of still more wicked demons, whose chief aim and supreme delight is to inflict evil and bring torment upon the children of men. Those imps of Satan yielding to drowsy slumber through the day, were especially active and irresistible at night, under cover of darkness as befits evil deeds, and they were sure to discover and capture all those who should venture near their dark abodes under sway of the imps of Satan.

Those evil spirits without exception, and from sheer delight were supposed to inflict blindness, incurable disease, or mysterious and retributive death upon all who by day should carry any trifling thing from the surface or from the depths of these accursed mounds, or who should impiously tread the unhallowed soil by night.

These, and similar superstitions (*sic*), together with the universal terror of the people to tempt the evil spirits, in full possession of the deserted mounds of ancient habitancy everywhere and always has been the first and greatest safeguard of the mounds and their buried treasures of history and art. These treasures found a safe resting place in the soft and pliant folds of the preserving earth, for many centuries after their authors had been forgotten. They seem to have been preserved by Providence for this enlightened age of scientific progress to recover from oblivion for the benefit of the whole world. All succeeding ages, and generations of mankind, in a time of ever-hastening progress and quickening power to grasp and utilize every form and feature of human intelligence, not only in the realm of the slowly recovered facts of the past history of the human race, but also in the broader field of newly discovered truth, as it relates to the more substantial building of future history, in what appears to be but the beginning of a new and more wonderful era of scientific advancement under the beneficent reign of a purer, freer, gentler, and yet more active, because more intensely earnest spirit of Christian enlightenment, and onward progress, toward the attainment of all essential truth, whether it be revealed in the written pages of inscription, often copied by erring and careless hands or whether for a time, even for generations and ages, it lies hidden from mortal vision in the strata of the earth's crust or is concealed under some great and mysterious law of the Universe, whose phenomena we see, and know not whence they arise, nor can we discern their usefulness to mankind, until the unvarying law itself is discovered by the truth-loving mind.

### Arab Perfidy.

Hamed-el-Birjud, one of the two sheikhs, who receive a weekly allowance to furnish us Arab guards, not being content with his former laurels, sought to distinguish himself in a signal manner by a sly act of unscrupulous greed and contemptible villany of which he alone, with his smiling face, facile speech, deceitful and flattering tongue, is perfect master.

It was Sunday, the 23rd. of June 1895. A religious ceremony was to be held at Suk-el-Afaj, a preparation for the worthy celebration of the anniversary (*sic*) of the death of Hussein of sacred memory to the Shiite Moslems. All our workmen were absent; the camp servants, too, were attending the annual rites, steward and cook were absent, and the camp was almost deserted of its male numbers. Even the Arab guards had conveniently disappeared. Only one swarthy Arab with his antiquated flintlock stood to his duty. His untutored mind espoused the cause of neither party. To the very end he was impartial. He even showed no preference for wage payers, nor did he betray the least desire to see their cause flourish. He showed himself a true descendant of the race which is supposed to have originated free government. His political principles, inherited with his Arab nature, were incapable of prejudice. He smiled alike on the just and on the unjust. With equal fervor and grace he greeted friend and foe. It was plain that we, single handed, must first fight our battles, and win our victories. True to his instincts he would then recognize the winning party. Without violence he could then use his diplomatic skill and lend his republican sympathies and dignity of a lawless Arab to our moral support.

Three armed Arabs, with a young mare of choicest breed, owned in partnership, over which an old dispute had suddenly sprung into a deadly feud, were hotly persued to our very threshold by an angry mob of about thirty well armed men seeking their lives.

Such was the exciting story told by the fleeing victims of Arab vengeance, as in their frenzied haste they sought asylum within the strong walls of our castle.

At the door were two guards, one of whom met the rabble outside the door and denied admission to the pursuers. The other guard shut the door. The furious crowd outside threatened to burst the barriers and enter the castle.

At this juncture, the writer, attracted by the tumult, descended to the door and bade the guard conduct the fugitives to the guest house and commit them to the protection of the Arab guard; where according to their unchanging laws, they could remain in safety. Overcome with fear they refused to move. The guard acknowledged his inability to move them. The unwitting commissioner interceded for them. To no good purpose, the refugees were again bidden to go. They refused, and reasserted their imminent danger.

A tumultuous attack on the door was threatened, and those warrier Arabs, with the agility of cats, sprang into the court of the building, and were making straight for the storerooms with apparent intent to conceal themselves from their foes.

This movement clearly revealed the nature of the plot. They were quickly, and possibly with roughness, driven back to the door, where they cowered and visibly quaked with rising fear. With the aid of a bright lad of perhaps twelve summers I succeeded in getting them out of our

fortress dwelling – an act requiring all the coolness and nerve at my command. The result justified the act. The tumult instantly became louder, the mob more angry and vociferous every minute, threatening violence, but no violence was done.

After the lapse of a few moments, the arrant suppliants returned to the door, which had been opened in spite of all commands to the contrary. There remained no other course but for me to meet them at the threshold and oppose their entrance, while outside several guns were fired. They passionately kissed my shoulder, and they kissed the hem of my garment, piteously pleading not to be sent away to certain death. By stern necessity my heart was hardened and their entreaties were vain. According to their own laws they were as safe at our guest chamber under the shelter of a tent rope as within our castle walls. It was clearly a ruse to loot and rob the camp. One of the leaders of the attacking party, seeing the uselessness of further supplication called the suppliants to him with a broad smile, which betrayed the nature of their relations, and the purpose of the plot. The door was then closed and fastened, and the two parties, in perfect good fellowship, went away together showing their chagrin and disappointment, and by their very acts, revealed the spirit of their villainy toward us.

To convey the idea that the affray had sprung from a real cause, the mare was left hitched to our guest house for twenty four hours. She was then taken away by some third party without further attempt at dissimulation, for by that time the farce and its clumsy failure were generally known, and far and wide the actors were held in derision. It is now well known that one of these three fugitives who entered our house is a famous robber, whom Hamid-el-Birjud had fetched to his camp for his evil purpose two days before. The other two men were desperate members of his (Hamid's) camp, who were strangers to us.

Ready for the most desperate deeds the party strove to so manage the affair that the responsibility would seem to lie at our own door, for having violated the unwritten laws of the land and having fallen into a trap ourselves. Hence no open attack was even thought of. At the door there is a standing order to admit into the house no one except its inmates, our skilled workmen from Hillah, and the three sheikhs who, for an allowance, pledge themselves for our safety and welfare. These sheikhs are Haji Tarfa, Abud-el-Hamid, and Hamid-el-Birjud. The former is true and staunch, the latter a smooth tongued villain without scruple or honor.

It is unfortunate for the expedition that the immediate environs of Niffer lie within the territory of Hamid-el-Birjud. Otherwise we could make an alliance with Abud-el-Hamid for protection.

Hamid-el-Birjud considers that he has a two fold grievance against the expedition, first for reducing the allowance for Arab guards; second, for dividing the diminished allowance among several parties in such a manner that Hamid's personal gain per week was about one-seventh of his weekly gain during the winter and spring of 1890.

Like a true Oriental, Hamid believes that the promoters of the expedition regularly pay the former allowance for guards, and that it is therefore his right to receive it, while the director in the field is supposed to be the gainer thereby. Moreover, he believes that the American people are possessed of unlimited wealth and prodigal habits, and that if the matter were properly presented to them, they would willingly increase the former allowance for guards. Instead of an

increase he has to accept a decrease, and puts the full responsibility on one person, whom he believes adds the difference to his own purse.

Hamid's covetousness and jealousy furnish the motive for his evil deeds. His sly tricks and evil schemes are not all directed against the expedition. He is always and everywhere active to gain any advantage, material or otherwise, that opportunity offers, over his fellow sheikhs, and over the tillers of his soil.

He has been specially alert to precipitate some untraceable evil on the expedition, and cast the suspicion on Haji Tarfa and Abud-el-Hamid, while they were responsible for its welfare, to the end that the expedition might be placed under his sole protection (*sic: protection*) and that he might receive all the gains for himself. On two separate occasions, Hamid has secretly entreated me to place the party under his sole protection, which would seem to be the height and depth of folly, and the beginning of trouble.

Haji Tarfa, though still vigorous, is in the declining years of his life. Abud-el-Hamid is of middle age, and in a natural and healthy way, is growing strong in experience, wisdom, and moral influence, according to Arab standards and traditions as venerable as are the monuments of Ur-Gur's wondrous skill.

As long as those two sheikhs live, and rule their respective tribes, so long can the expedition, with ever watchful and prudent care and discretion, directed with determined zeal, hold the ground which has been gained with so much difficulty, and not without danger at many points, but above all it must be Watchful and must Watch Without Ceasing.

### Battles Lost and Won.

Weary of the peace which had existed but a short time, our neighbors sought the warpath in the spring of 1895. The number of robberies and assassinations had been abnormally great, even for this lawless region of ungoverned country. Troops gathered in large forces at Daghara, and the neighboring sheikhs repaired thither in obedience to the summons. Great excitement prevailed and threatening remarks were often made even to our soldiers. Only the most unremitting vigilance on our part prevented harm coming to us. We did our utmost to prevent serious trouble, and keep the atmosphere of our little camp serene, and a sense of security prevailing over all, but with all the confusion and unrest round about us, in all this commingling of friend and foe, with treachery and corruption running rife even among our very guards, we could but do our utmost in all watchful, careful, and prayerful ways, and leave our keeping with Him who holds us "in the hollow of His hand", and without whose notice "not even a sparrow falls to the ground", nor did He fail us in any of our times of trouble.

It seemed a pity to expend one's strength in trying to preserve one's life for which an established guard was well paid, and yet such an unwelcome duty became an imperative necessity.

Among our neighbors several blood feuds were settled in true Arab style, and new feuds, shifted to the person of one's bitterest enemy, created, to be handed down in perpetuity to coming generations. Some eighteen bodies of the killed were carried to Nejeff for burial in the sacred soil, consecrated by the death of Ali.

The annual migrations of the great tribe of Shammar Arabs, appeared sufficiently near to Niffer to throw the surrounding people into their normal state of alarm and excitement.

From their southern neighbors a company of Afaj Arabs at one time captured a whole encampment, drove away flocks and herds, and gathered tents, stores, and other movable property as they departed. The offended tribe gathered in force to recover its property by resort to arms, since an appeal for restitution was denied. Haji Tarfa at once raised his standard, and mustering his warriors successfully resisted the attack, and sent many wounded men to our doors for treatment of their uncleansed wounds.

During the last half of the year 1895, each month and week it became more difficult to send messengers to Divaniyeh to carry and fetch the weekly post, which was frequently omitted because no one could be found who was willing to go on the peaceful errand. On several occasions two armed men were sent to fetch the post, because one man could not be found who was willing to make the journey alone.

The general condition of pillage and murder round about Divaniyeh to the very threshold of the palace grew apace, and was nurtured by the greed and revenge of the city-council led by the Mufti and Kadi in a deep and dark intrigue to overthrow the new Musterif (*sic*: *Muteserif*)(governor) while filling their own purses with the gold of thieves and assassins. No one could rest in safety except those in league with the robbers.

A band of Arabs from Daghara attacked and burned Afaj. Afaj is our local market and is perhaps five miles distant from Niffer. A great deal of property was destroyed and a considerable quantity carried off by the sneaking band of villains.

Twice was an attempt made, for the sake of plunder and revenge, to kill our confidential agent returning with money from Hillah and Divaniyeh to Niffer. It became more difficult and dangerous to bring money to Niffer as time elapsed and the Arabs became aware of the fact that considerable sums of money, which might be easily intercepted, were passing through their lawless deserts and marshes.

The very last time that money was brought to Niffer there was an attempt made by Hamid-el-Birjud to waylay the confidential agent en route with the money. The reason he failed to capture the agent with his money bags was twofold; first, he miscalculated the time of the messenger's return; second, he was astonished to find the messenger attended by four mounted soldiers and three other armed men. The messenger, knowing the lurking dangers of the way, had prepared the money for transportation the preceeding night and before the dawn of the morning light had broken, he gathered his little company together and leaving Divaniyeh by night, pursued his journey over the sleeping deserts without exciting incident. Yet as he and his little band of wayfarers safely emerged from a long stretch of brushwood and thicket, he met Hamid-el-Birjud with a chosen band of eight well armed warriors, riding straight towards the thicket, with evident purpose to lie in ambush for him under its excellent cover of brushwood among the innumerable watery glades of the marsh, whence escape would be well nigh impossible, and defence against a concealed foe, would at best be an unequal contest.

Meeting in the open desert and on firm dry ground, the keen-eyed quickwitted villain, after the manner of eluded robbers, saluted the sturdy messenger in facile, friendly speech, quite meaningless to an old traveler who has often been saluted in like manner by parties too weak or too timid, or just too late to gain some vantage ground over him, to rob him.

Every experienced traveller in the unfrequented parts of Syria, Asia Minor, and Babylonia, has met organized bands of robbers, who through some unfavorable conditions, decided in the twinkling of an eye not to risk an attack, and with pleasant salutations pass on as if he too were travelling to distant parts of the country on some peaceful errand. By instinct the traveller comes to know those bands of welcoming villains, who are all things to all men according to the circumstances of the first moment of the meeting.

The expediency of attack is generally decided on first sight of a party. A moment's hesitation on the part of the robbers is generally a virtual decision not to attack. The trained traveller sees and understands the movements better than the vacillating highwaymen who are still debating the question of attack, as if the decision were not already made against making the attack by their very act of hesitation.

Fearlessness, self control, perfect command of one's forces, and show of boldness and nerve in marching straight along without bluster or swagger, will generally win the day for the courageous traveller against the hesitating robber, be he ever so bold and villainous.

So the treacherous chieftain Hamid, with his savage band of desperate men was too late for the attack he had planned to make in ambush, and again by virtue of sleepless vigilance we had escaped unharmed from the snares and wiles of an unscrupulous villain whose schemes are the more difficult to meet because of his professed friendship. This treacherous sheikh, bound by written pledge and solemn oath to protect and aid us in all needful ways in return for the revenue he received for furnishing Arab guards violated every pledge and oath and sacred trust in the most faithless manner. The wily chief devised and wrought untold mischief, and the mildest thing of all his ill doing was to cut off our water supply. Repeatedly did he do this for no other purpose than to gain money for its restoration. All of his tricks and wiles availed him nothing. Although for a time it would have been easier to have temporized with the greedy Arab, yet one unlawful gain would have led to others, and the principal one, once admitted, would have led to ever increasing demands of extortion.

Until the last six months of our residence at Niffer, Abud-el-Hamid treated us with fairness, justice and honor. His spirit of fanaticism was in due time awakened and he afterwards violated every pledge and promise of honor, truth and righteousness. For more than two years he was our bulwark of defense against many of the wiles of Hamid-el-Birjud but in the end he too became covetous of unlawful gain, and sought several opportunities to press us in hope of private gain. As a matter of policy and principle we resisted with sleepless waiting and watching all attempts of the Arab sheikhs to do us injury either pecuniary or as making future explorations difficult to carry on.

#### Well in Garden.

In an enclosed garden adjoining the castle, there was dug a well, which, to the surprise of all, gave drinkable water slightly impregnated with various salts, and yet scarcely rendered unpalatable thereby. This is the more strange, since a well forty-five feet distant from it gave very bitter water, and the water of a well eighty feet away was absolutely undrinkable for men and animals.

The first mentioned well is now lined with bricks, and a pump, secured in Baghdad, was put into it the following week.

The question of water supply was thereby temporarily settled for about two months when it was found that its saline ingredients were doing harm to all of the party. At that time wells were dug in the bottom of the dry water channel which had supplied a stream of water during the summer. The water collected by infiltration in these shallow open wells or pits was comparatively free from saline ingredients but filled with clayey deposits and unsavory to the sense of smell. It was boiled, clarified and cooled before use as a beverage and this was a precaution always resorted to at Niffer in preparation of drinking water.

GOVERNOR OF DIVANIYEH.

The musterif (*sic*) of Divaniyeh, a brigadier general in the army, holding also the civil office of governor, journeyed to Baghdad and refused to return to his post without soldiers. At last accounts the troops were not committed to him, and he, holding fast to his avowed purpose awaited a decision from the central government at Constantinople.

Whether true or false, the report that the musterif of Divaniyeh, failing to obtain the military aid he requested, resigned, his civil office, and will be stationed at Baghdad on the military staff there, is alarming. If the reports are true, and they wear the appearance of truth, the future is full of evil forebodings for the poorer people, who are native born, and for all foreigners dwelling in Afajland.

Robbery and murder increases as one approaches the seat of our local government. Under the very shadow of Divaniyeh life and property are most unsafe, and within its walls robbery is rife, and officials somewhere and in some way profit by the trade.

There seems to be a general dissolving of all forms of law and order. The body politic is in a state of collapse, and judging from Divaniyeh there is no available remedy, and no trusted physician to prescribe for the dying patient.

#### MOHAMMED PASHA.

Mohammed Pasha, a Russian exile of Georgian birth, with two batalions of infantry, a battalion of cavalry, and a battery of cannon, recently reduced the tribes on the Tigris and Shatt-el-Hie to order, and collected full arrears of taxes with little loss of life, though he applied fire with a ruthless hand to each resisting village and camp, for which purpose he carried thousands of gallons of oil, while his cavalry captured and drove into the vicinity of his camp the flocks and herds of the bewildered people. From Hie his headquarters on the banks of the Shatt-el-Hie, he was expected to cross the desert to Niffer, which is the very pit and pest-ridden slough of intertribunal (*sic*) feud and treasonable intrigue. For some reason unknown to us, Mohammed Pasha returned by steamer from Kut to Baghdad; but declared his intention to leave Baghdad at the head of sufficient force to reduce to submission these boastful and defiant marsh-dwellers and reed-hutters. Whether Mohammed Pasha will or will not execute his threat is beyond our knowledge, but at the same time it is impossible to understand how his government can abandon its purpose at this point. I do not believe it will leave the task half done as it is today.

#### Ahmed Bey.

At times squads of enraged Arabs over-ran the desert between Niffer and Divaniyeh, stripping everyone they found of property and clothing, without distinction of persons. At times none of the Afaj Arabs, or their natural allies, dared undertake to make a journey across the infested region, and it was not easy to secure a neutral messenger. On several occasions our post was sent through by night, while we hoped, almost against hope, that the dislodged Arabs would cease their swarming, and alight in some new and more remote spot before another post day; but



the political atmosphere threatened storm, and the war clouds seemed to thicken and deepen as they rolled nearer to us, until the deserts bristled with spears and every bush concealed a waiting robber.

One, Ahmed Bey, a desperate fellow, and a deserter from the Turkish army, a centurian by rank, and by birth a Kourd, of vile character, was sheltered by different tribes round about Niffer for eighteen eventful months. The alacrity with which he moved from one tribe to another, thwarted all attempts at capture, although the government had placed a large money reward on his head, and had promised to promote to the rank of captain, the soldier or officer who would capture and bring him living or dead, to the capital of the vilayet.

Several times he organized successful parties and committed large robberies at the expense of virtue and human life; the most successful of which were committed between Baghdad and Hillah in the vicinity of Khan Mahawil and Khan Hasswa and on the banks of the Tigris near Kut. This high-handed desperado would steal upon a caravan like the sneak thief that he was, and taking the lives of the men who resisted, and the virtue of the women who best pleased him, he would drive the laden animals away to his booty-loving comrades, in the environs of Niffer.

Near Kut on the Tigris there lived in a castle, which he had built for himself, a licorice contractor who had about him a band of 150 Nestorian families. He was known to have considerable money and other movable property. Ahmed Bey coveted the money in the castle and planned a bold attack to possess it. He succeeded in gaining entrance to the castle, but it was so well defended that he was driven away without booty, after severely wounding the contractor, who after several weeks of illness recovered and offered the liberal reward which ultimately secured the tranquility of the surrounding region.

An inoffensive Jewish merchant coming one day to Suk-el-Afaj for transient trade was set upon and murdered for seventy piasters (\$2.97½) which he was known to possess. His body was robbed and thrown into the stream, with no attempt at concealment and no succeeding show of justice, and for smaller sums of money have a score of lives been taken within a league of Niffer during our residence there.

Ahmed Bey brought to Shaheen's camp, about two miles distant from our castle, several animals laden with plunder, among which were two cases of Martini rifles, captured from the government. Shaheen, who is our bitterest enemy, and has organized several raids upon us, received and secreted the robber and goods, and otherwise co-operated with him, although he had given most solemn promises to the government that the robber should be seized and handed over to the authorities at the first opportunity. Such are the pledges of the faithless, treacherous Arabs inhabiting these marshes.

With this high-handed bandit so near us, the conditions of security were changed into a state of keen watchfulness on both sides. At times we had great difficulty to communicate with Divaniyeh. The Afaj and El Hemza tribes on the one hand were at feud with the Daghara Arabs on the other, and there was no comity between them. Furthermore our constant watchfulness was directed towards Ahmed Bey and it was a dangerous and difficult matter to get money to Niffer. Even caravans of corpses were set upon for plunder and abuse, and women were at times

violated as a principal of political revenge, whenever and wherever found. It was only by the exercise of the greatest care that the well-laid plots to waylay and rob the trusted messenger who brought us money were averted.

Our weekly postman to and from Divaniyeh thrice fell among thieves in the year 1895, and each time was persuaded to divide his scanty raiment with his covetous countrymen, although the letters were each time allowed to pass as worthless matter.

Under the direction of this boldest of cowards, Ahmed Bey, our house was to have been swept of its coveted treasures and its walls garnished with the blood of its occupants in the darkest hours of some favorable night during the sacred month of Ramazan, which month ended on the 28th. day of March 1895. The plot was devised by Mahmoud Effendi, Hamid-el-Birjud conducting the negotiations with Ahmed Bey. The soldiers guarding our door from within were to be asleep, and the Arab guard was to be decoyed away from the rear of the house whence the ascent was to be made to the flat roof. The descent from the roof to the rooms could then be easily made while the soldiers slept.

The reason for such action was the circulation of false reports that we were about to quit Niffer and had a large sum of money in the house. That duly authorized Turkish official, the commissioner Mahmoud Effendi was the author of these reports; he having received notice of appointment of his successor under circumstances of great humiliation to himself.

An ever watchful and gracious Providence gave us the necessary clues to awaken us to the emergency, and an unsleeping vigilance on our part, carried us safely through those perilous nights.

For full eighteen months did Ahmed Bey and his desperate gang commit the boldest of robberies and destroy many lives round about Niffer, but he was at last captured and killed by an Arab, and his head sent to the capital of the vilayet, Baghdad, to claim the reward offered by the government, and that of the licorice contractor.

His bloody deed had inspired the hatred of all travellers and his outrages had won the curses of all women, save among these villainous Arabs who praised his courage and rendered efficient aid in return for a liberal share of his ill-gotten gain.

Ahmed Bey although one of the boldest and most daring of cowardly robbers in all the length and breadth of Afajland was not more bloodthirsty or fiendish than thousands who yet live to curse the lives of men and women alike. Recently some 40 Arabs came upon eight women (three virgins and five married) and in turn took political revenge upon the hostile tribe in a public oriental style. For themselves the married women quickly submitted, but plead for the virgins. The plea was not heard and the virgins were likewise violated.

Our postman saw a party of five dark-visaged children of the desert come up upon a man and wife and these in turn made a record for themselves, which record will, without reserve be related with some degree of elation, and listened to with approval. The husband had to stand quietly by and bear silent witness to the carnival of lust in public.

Early in November 1895 an army surgeon with his harem and an escort of four soldiers, 3 servants, and two boatmen, was attacked by a party of about 40 Arabs under the leadership of the Persian Kour, Selman, a renegade and a fugitive from justice, whom the Behahitha Arabs sheltered. He is a proscribed outlaw and a robber by profession, and by practice a villain grown desperate. He was wounded by his own brother in robbing a house in Divaniyeh. In the darkness his brother had mistaken him for the house owner and shot him. I then hoped he might commit no more evil, but my hopes were in vain. His specialty is robbing houses in Kut and other places on the Tigris, and in Hillah and Divaniyeh and many other places on the banks of the Euphrates. For many months his covetous eyes were fixed on the castle at Niffer and even made up a party to assist him. He afterwards took to plundering parties on the highways and thoroughfares by land and by water. The above robbery took place about five miles below Divaniyeh on the river. Two soldiers and two servants of the surgeon were wounded. One servant soon died. One boatman was killed outright, and the other severely injured. The soldiers killed three, and wounded several Arabs; but the larger party soon prevailed and sinking the boat, stripped the travellers of money, jewelry, household goods, and personal ornaments. The robbed party returned in sorry plight and humiliation to Divaniyeh, and telegraphed to Baghdad and Constantinople; but nothing came of it. The local government was supine, and its petty officials in league with the robbers, which makes the latter more desperate and fearless, committing their outrages under the shadow of the palace at Divaniyeh by night, and blocking the highways by day<sup>1</sup>/<sub>2</sub> without fear of being molested or questioned.

Week by week the state of all the region round about Divaniyeh is getting steadily worse in every way.

#### RESIDENCE AT NIFFER.

It is by no means easy or comfortable for any foreigner to dwell near the pestiferous, insect-breeding, seething and malarious marshes of lower Babylonia, when the temperature in perfect shade rises above one hundred and fifteen degrees (115 Fahrenheit) and the stifling dust storms rob the sun of shadow, and parch the skin with a furnace heat, while the ever present insects bite and sting and buzz, through all hours of the day and night.

Experience confirms the conclusions of former years that the autumn months are the time of danger to health. The long and hot summer leaves the body debilitated, and the sudden change from a hot and dry, to a damp and chilly atmosphere, brings attacks to the weakened system at its weakest point, always accompanied by more or less malaria and diarrhea. Even the native population does not escape these evils.

It ought also to be said that anyone who takes cold at the autumn season, invariably, so far as my experience goes, suffers from malarial fever in some form more or less violent, and each springtime witnesses many deaths clearly traceable to colds taken the preceding November and December.

It would therefore seem that for an Occidental to spend the summer at Niffer is a matter of physical discomfort and inconvenience more than of actual danger to health. The time of real, and not of fancied danger, lies in the change from summer to autumn, and in the autumn months.

A woman in our camp, the mother of three small children, suddenly died of a disease clearly traceable to cold and neglect, and was buried in consecrated ground on the banks of the Euphrates.

For serious explorations in any part of Babylonia, I would earnestly recommend continuous labor through all the months of summer and winter, as we have attempted to do at Niffer, and by so doing, have proven, beyond the right of any one to doubt, the possibility, if not the wisdom, of conducting continuous excavations under proper conditions, and regulations of life.

After a larger experience than has fallen to the lot of any other Occidental, I must confess that the tension of daily life among these greedy, treacherous Arabs, through the heat and pests of a Babylonian summer, often approaches uncomfortably near the breaking point; nor is the strain wholly physical. The mental organism has its peculiar burdens and tension to bear, and these are sometimes greater than it is possible to describe.

The dry, stifling heat which rises from the desert sand-beds is much like a blast from a heated furnace. The prevailing direction of the winds in lower Babylonia follows the trend of its two great rivers, the Tigris and the Euphrates, blowing from the northwest with the current of the streams or blowing against the streams from the southeast. The southeast is the hot wind, while the cooler breezes come from the northwest and from the great marshes. These breezes prevail in summer and are comparatively comfortable by day, and refreshing by night, even when the temperature is excessive.

All over the plain, on any quiet summer's day can be seen little growing columns of dust formed by little cyclones, a most characteristic sight on those desert plains. At any time in the heat of a still day one may see several of those tiny cyclones forming a filament of rising dust, growing, swirling and sweeping away over the sultry plain out of sight. It is no unusual sight to see six or seven of those little cyclones in process of formation or movement, without turning the head. These only form on comparatively quiet days.

Violent squalls and storms of dust frequently occur through the summer months especially in June and July. There is something intensely dreary and desolate in the appearance of one of these dust storms. Every thing is a dull brown or cast iron color, and the earth and sky are full of drifting clouds of dust which has the appearance of an approaching blizzard of snow with the changed condition of parching heat. Sunrise and sunset are always peculiar in the long deep orange --- even fiery red band that runs along the horizon, against which distant mounds, trees or forts stand out in a deep purple. The green of the marshes, seems to take on a bronze green shade, and the pools of open water gleam almost silver white. Our favorite view is from the castle roof in the early evening when the sun sets behind the south end of the long range of Niffer mounds which here ends in the reed grown marsh. Just beyond is a sheet of open water, and high above the glow of saffron, purple and pink hangs the silver, thread-like sickle of the pale new moon. Often at this time, is to be heard the long drawn wail of a jackal followed by a chorus from our village dogs. Towards evening, too, our Arab guardsmen and laborers begin to be lively, perhaps they were a little tired and tried to work up their spirits. At last the single singer and his dismal song were drowned by the lively chant that Arabs use on all occasions

when they must make a combined effort --- pull a robe --- lift a weight --- or work up their courage to fight. A leader improvises words and sings them, to be answered by the same words by the chorus; or the gang divides into two parties who answer one another. Until late in the evening a crowd of children frequently sang at the top of their voices, pounding something that sounded like a tom-tom and clapping their hands to the tune. Arab music does not seem difficult to acquire, and the children sing it with as good effect as the older people.

The Arabs, old and young, celebrate the approach of festivals, by songs and “warwhoops” until late in the night. The plaintive love song of the male voices is interrupted by the vigorous and shrill tahleel of the women that sounds like the yell of the American Indians. To lend variety, a jackal ventured to bark his long drawn “eyouh-eyouh-eyouh” followed by an immediate war of barking in every pitch from the village dogs as they advanced out into the desert in a solid phalanx to meet the intruders, for the jackals go in pairs.

#### GOVERNMENT INSPECTORS OR COMMISSIONERS.

In granting permission to foreign governments and to parties of foreigners, to excavate within its territory, the Turkish Government appoints an inspector or commissioner to represent the government at the scene of excavation, his duty being to secure the fulfilment of the terms of the contract, and to prevent abuse of the privileges conferred by permission. The law of the land also requires that the commissioner be paid by the parties holding the permission to excavate. The Government appoints a Commissioner from its unemployed civil governors, no special fitness for the office, beyond the ability to read, write, and make a credible report, being required.

It is not an easy matter for a loyal subject to represent his government and satisfy a foreign paymaster at one and the same time. Our first commissioner, Saleh Effendi, a Kourd of Kerkouk, upwards of 65 years of age, having been more than 40 years in the government service, proved a pleasant, courteous, companionable man, of intelligence, tact, and a fair sense of honor. For 16 months he administered the duties of his high office with absolute impartiality, and integrity, honorable alike to his own government and to the rights of his foreign paymasters; but the ways of official life are unscrutable, and without warning or premonition of any kind, the services of Saleh Effendi, the most honorable of his line, were suddenly ended on the 28th. of July, 1894.

The method and manner of the change were mysterious, precipitate and humiliating to the outgoing official. Saleh Effendi received no tidings of his removal until his successor suddenly appeared and read his commission to the astonished man who promptly committed the records, and treasures of his office to his successor and departed with all his goods two hours later of the same day.

The first news of the change was an appeal made to me to furnish conveyance and portorage for the new incumbent of the office. It was made by a strange soldier who under escort of one of our own soldiers came to me at the scene of the excavations.

Out of breath he came, and he had evidently come on a great mission. When he had recovered his breath, and had regained the use of his tremulous speech, in fitting terms he presented the salaams of one Daoud Effendi of illustrious lineage, a man of valor and of mighty deeds, in short a conquering hero who came clothed with authority to supercede Saleh Effendi as the duly accredited commissioner of the government to the American expedition excavating in the mounds of Niffer. He demanded for himself and for his female slave two horses, and the services of eight or ten men to bring his household goods and gods to our abiding place in the desert. Meantime with his manservant and his female slave he would continue to occupy the noble ship that had brought him from Daghara, and that now lay at anchor on the borders of the great marsh three quarters of a mile away. Having no horse at my command, I confess to having so far forgotten the grandeur of the occasion, and to have been so much under the influence of an evil spirit, as to have smiled at the approaching humiliation of a proud official, who could find no horse to bear him in state to his new office; which act on my part so touched the offended pride of the soldier that he poured forth in voluble accents the story of the great man's great lineage and greater deeds, and finished his speech with the unanswerable argument that the dignity of his high office would not permit the new commissioner to walk from his boat to the castle.

The soldier's loyal appeal did not fail. It was founded in the fitness of things. Three-quarters of a mile was too far for official dignity to walk. Swift footed messengers were sent to find and fetch two Arab mares. They went their different ways in animated haste. All the region round about us they scoured with scurrying feet. With eagle eye they scanned the whole plain from afar. Each neighboring camp was searched in vain. There was no sight nor scent of an Arab steed. Not even a braying donkey was heard. One by one the weary messengers returned from their fruitless errand. Their missions had failed. The soldier was disheartened. Two hours had passed, and still the mighty hero sat in silence and in state on the deck of his chartered ship awaiting the arrival of the Arab steeds.

The look of manly despair on the soldier's face foretold his sense of disappointment over an humiliating inauguration into office, of a mighty man of renown, unless two noble steeds could somewhere be found to convey him castleward with due pomp. With an eye to the fitness of things, and a mind attuned to the necessity of lawful gain, one of our Arab guardsmen now consented, for a prepayment of money, to bring to our aid a well trained mare, a mare of high pedigree, suited in all ways to the grand occasion. The mare was brought and the pomp of ancient days was about to be revived at modern Niffer, and, for aught one could prove to the contrary, to a believer in the transmigration of souls, a veritable Sargon, a Gande, or an Ur-Gur, was about to reclaim his ancient prerogatives, and, after an intimate personal acquaintance of several months, it seemed natural and reasonable to account for the differences between the ancient King and the living commissioner on the ground of the rapidly degenerating tendencies of successive transmigrations, thus suggesting that the doctrine of evolution as generally accepted, should be reversed.

Three months did this worthy official with his black slave and companion haunt the castle walls at Niffer. He, too, was in due time relieved from his duties of his office with a suddenness that is

truly characteristic of the ancient world, with its mixed democracy, grafted upon its native despotism, inherited direct from Sargon through the fickle Xerxes, whose restless spirit in all its ferocious cruelty sways the minds and prompts the deeds of multitudes of people today, as in all ages of the world's history it has done, and as it will doubtless continue to rule the hearts of these illiterate Ishmaelites of the Babylonian marshes until the dawn of a better era shall train mind, hand, and heart, in a better way of life.

Mahmoud Effendi was the next to come into the field and soon proved himself the embodiment of evil, an expert in every form of corruption, who used his official and personal influence in the interests, not of his government, nor of right, but for his own unrighteous gain and use.

This commissioner, having failed in his diligent efforts to get us so entangled that our irade would naturally and must logically be withdrawn, next tried to enlist our workmen to slip away antiquities from the trenches for himself. Failing in this, he next attempted to induce them to desert us.

Finding his schemes discovered, one after another, he began to excite the religious hatred of a fanatical people against us, and at the same time awaken the cupidity of the Arabs, born and bred to a life of plunder and revenge.

Mahmoud is openly acknowledged to have been at one time the authorized procurer of false testimony, the conductor of bribery in the courts of law, when it was his duty to arrange between the court and its clients for the conduct and judgement of the cases brought before it, and to procure and train for each trial professional false witnesses known as such by all men.

During the last three weeks of Mahmoud Effendi's commissioned stay at Niffer, he sat quietly in his tent under the shadow of our castle and passively awaited the coming of the next meal and the arrival of his successor. It being generally known that he was to be removed from his office, Mahmoud Effendi had no further influence among the Arabs and therefore no power to do us evil.

Contrary to his avowed intention, Mahmoud Effendi quietly stole away from Niffer in the night at about the hour of midnight, and decoyed away with him two of our government guards, against my open protest made the previous evening. Rising before the day dawned, it was an unspeakable relief to find the space where his tent had stood, no longer covered with canvas and to certainly know that the man who had committed so much evil under shelter of a noble office, had finally departed from our precincts, with no power, beyond that of personal influence exerted from a safe distance, to make further mischief for the expedition.

Mustapha Effendi, the fourth commissioner to Niffer, arrived at his post of duty, the second day of May, 1895, and on the following day, relieved Mahmoud Effendi from the neglected duties of his office, and the arduous task of drawing the commissioner's salary.

Visit to Baghdad.

After one year of unceasing toil, under conditions which were trying alike to mind and body, the writer, left the constantly changing scenes of action at Niffer for a much needed season of rest and recuperation. Saleh Effendi, the commissioner and the steward or confidential agent, who has ever and at all times and in all ways, proved himself faithful to the highest interest of the expedition, and worthy of every personal consideration, were my only travelling companions.

From Niffer to Hillah we chose the water route and with a favoring south wind we were but two days in making the journey against the strong current, for the inundation of the Euphrates was at its height. From Hillah we engaged a caravan of mules and horses to convey us, with our baggage, in three days to Baghdad.

The first two days journey to Khan Mahmoudieh was made without exciting incident. The third day was lost in a fruitless attempt to continue our journey by caravan to Baghdad. At a distance of two hours from the caravanserai, we encountered increasing floods from the Euphrates and were compelled to return to Khan Mahmoudieh for another night, where hundreds of Persian pilgrims returning from Kerbella, perforce remain, or have turned back again to the desert city made forever sacred to them by the untimely death of Hassan and Hussein of sweet memory to the Shiite Mohammedans. Many Persians and Indians here entreated us to assist them to return to Baghdad, since without the consent of the government they could not charter boats to transport their caravans over the tumultuous waves.

The following morning we set off for Seleucia, with a large company of soldiers, and Arab guards. The region being then infested with a roving robber tribe of Arabs, the government refused to permit us to go with a less escort; and the event proved the wisdom of the caution. Two hours from Khan Mahmoudieh, we passed a low mound of small size, whose surface was covered with iron slag, a smelting furnace probably once occupying the site. At Seleucia we could not get near the river's bank, for the water had overspread the country on both sides to great distances. Fortunately for us, a large sailboat (sefina) was near at hand. For 300 piasters we chartered this sailboat to take the party down to Jezrieh where we were to board the first steamer up the river to Baghdad.

As good fortune would again have it, we met a steamer before sunset, and succeeded in attracting the captain's attention though the steamer was far distant from us. The steamer crossed the broad swiftly flowing floods of the Tigris to the spot where our open craft was moored to the river's bank. We were taken aboard on Thursday evening, some five or six miles below the site of ancient Seleucia, and scarce forty miles by the winding river's course, and we struggled against the mighty floods for 42 hours until Saturday noon, when we arrived safely in the city of Baghdad; then a veritable island surrounded with rapidly spreading floods and inland seas reaching as far as the eye could discover.

The government and the people were making every effort to raise the dikes around the city and so far as possible keep out the swelling floods from the streets and houses of the city. No caravan could enter or depart from the "Glorious city of Baghdad"; while over the deserts and buried highways toward Persia, Babylon and Constantinople, as well as up and down the river



plied every sort of craft from the ancient coracle of the Assyrian monuments, to a modern sailboat and flat bottomed steamer.

Where the Diala united its waters with the Tigris only one great sea of boundless extent could be seen from the deck of our steamer. Thousands of acres of wheat and barley were submerged or swept away by the angry stream. Cattle and sheep in great numbers perished, and many habitations were destroyed. The government powder mills a little above Seleucia collapsed just before we passed them and the magazines of powder were soon swept away in the mighty current against which our steamer scarce made one and a half miles an hour at any time, and we saw people fleeing for life through the rising floods, that had cut them off from dry land, and at the same time carried away their flocks and herds and household goods in the swift and angry current. Thousands of drowned bodies of sheep and many lifeless forms of cattle and buffaloes were carried away to feed the fishes of the deep sea. On an island in the sea of flood, a drenched jackal was seen to wearily wade by discouraged leaps in vain endeavor to find some spot of dry land, but none was to be found, yet he was loth to leave the island and swim the strong current.

Such a flood had not visited Baghdad, it was said, within the knowledge of the present generation of its habitants.

It was therefore after many trials and tribulations and with much vexation of spirit our little party arrived in Baghdad on Saturday, the 21st. of April, 1894, having been six days en route from Hillah. We began the journey from Hillah by caravan, but on account of the rapidly increasing floods, we changed our mules for a sailboat at Seleucia and finally entered the island city after an experience of eight hours in a sailboat and 42 hours in a Turkish steamer, which made an average speed of about one mile per hour against a current of terrific force, although the track of the steamer lay outside of the main current of the stream.

In the city of Baghdad, the modern metropolis of Babylonia, one month of needed rest and change was much enjoyed after my lonely and desolate life in the deserts and marshes of Afajland, with no companion save the half savage and wholly treacherous Arabs of Robberdom and Murderland. Few people know what it is to live alone, and no one who has never attempted to live without companionship among brutal, scheming, thieving, and murderous tribes of feud-brewing robbers can ever know the mental tension that was required to maintain the equilibrium of security to life and coveted property. There was danger on every side, and while cholera slowly crept toward us with foaming mouth and open jaws on its grewsome errand of destruction, there seemed to be no escape from the narrow aisle of death. There was not one soul about me who could speak the language of my childhood, nor any European tongue; no one who could read or write a word of any language; none to share, and by sharing stimulate to great and noble thoughts; no refined mind to suggest or receive a quickening sentiment nor a congenial life to breathe an inspiration or an aspiration. I was alone with only the narrowness of a solitary existence for company. And yet I was not alone.

The time was employed in replenishing the stores and supplies --- a task which requires time in the oriental world where all things are slow-going. Meantime my own health and that of the steward had been greatly benefitted by reason of the change of scene, air and surroundings.

One of the happiest results of the sojourn in Baghdad, and one productive of much good, was the meeting with Mr. Joseph A. Meyer, who was journeying from India to the Mediterranean sea-coast via Baghdad.

The work done at Niffer had been much hampered by the need of some one on the ground versed in Architectural and mechanical drawing, and when Mr. Meyer with his wealth of practical experience signified a willingness to go with me to my desert home and give the expedition the benefit of his further and fuller study there, I gladly availed myself of the benefits which his labor and companionship offered, and he was at once made a member of the returning party.

With the addition, therefore, of Mr. Meyer and a Persian cook, to its staff, the expedition left the "City of the Enchanters", "The City of Gardens", at a late hour on the 21st, of May and encamped at night under the shadow of the decaying tomb of Zobeida. This tomb is a lofty structure of pine-cone shape. It lies beyond the city walls on the west bank of the Tigris, and marks the resting place of Haroun-al-Raschid's beautiful queen, famous in the history and traditions of the Babylonian glory.

Owing to the floods which still prevailed, it was necessary to proceed by sailboat from Zobeida's tomb, a distance of some 16 or 17 miles, to Khan Mahmoudieh where a caravan of mules awaited us. The voyage consumed nearly all day, from earliest dawn, and was without exciting incident except that the boat stuck fast on several ridges that were crossed at an unlucky point.

It was a desolate sight to sail over that great inland sea which had so recently swallowed up thousands of acres of waving grain, and destroyed fertile gardens by the score. Nusset Pasha's well-kept garden and orchard of young orange, lemon, fig, pomegranate and other fruit trees at Khur were destroyed, and the buildings belonging thereto were hour by hour crumbling in the waves, or being swept away by the currents. Here and there the higher hills and ridges that remained from the embankments of earth, that were formed by the original digging and frequent clearing of the ancient canals, appeared as islands in the waste of waters.

We arrived in Hillah Thursday morning the 24th. and after reengaging the former workmen and several new members, continued our journey on Saturday by boat to Niffer, whither we arrived the following Monday at midday.

It required two days to remove our stores and supplies from the boats to our house, and after this task was completed, Saleh Effendi and I paid an official visit to the mute-serif of Divaniyeh then encamping with a battalion of soldiers near Niffer. The mute-serif Said Pasha, was courteous and quickly executed the orders we had brought from the governor-general of Baghdad, promising to visit us at a later date.

The entire community, from sheikh to the humblest individual openly rejoiced over our speedy return. The people had discovered that our absence was a pecuniary loss to them and they thought of our return as their gain in riches. The copious rains gave abundant promise of bountiful harvests and they ascribed these blessings to our presence among them, saying that no

such plenteous harvests had come to them since the previous expedition of 1890 had left them to witness drouth (*sic, drought*) and to suffer dearth.

Our house was found to be in good condition and a sufficient guard stationed around it. The doors and windows were unbroken and nothing disturbed within the house.

The next day the workmen built houses for themselves, made a guardhouse and a guest chamber in one structure, and roofed over the court of the castle, making all things ready for the approaching heat of summer and a long residence at Niffer.

### CARAVANSERAI.

The long chain of mounds known on the map of Niffer as XI was first examined in the summer of 1894 by means of a combined trench and tunnel, cutting open trenches into the slopes or bases of the mound on its opposite sides, and tunneling through the higher part of its long ridge. The trench, which was a continuation of the tunnel in opposite directions, descended three feet below the level of the plain, and failed to discover the foundation of the structure.

The entire mass of the long ridge-like mound was found to be a great and massive rampart, or an enormously thick and solid fortification wall, built of crude or sun-dried bricks. The wall was forty five feet in thickness, and the splendid crude bricks composing its impregnable mass were of almost incredible size, measuring twenty inches in length and breadth and three and one half inches in thickness, while in solid contents each brick contained 1400 cubic inches.

In color they are dark gray, and in quality they are unsurpassed by the work of any later King. Indeed they are superior in quality to the bricks of any King after the time of Ur Gur, one of the greatest builders of antiquity. They were made of clay, thoroughly mixed with straw, and dried in the sun without cracking, and are therefore, firm in texture, and of regular form, constituting by far the most solid and tenacious mass of unbaked bricks that we have ever attempted to cut our way through.

In the roof of our short tunnel, three of these unbaked bricks bore on their down-turned faces the clearly stamped impression of Naram Sin's well known brickstamp.

Excepting the recently discovered temple foundations underneath Ur Gur's ziggurat, this is by far the oldest mural or monumental construction, that has ever been found and identified in Babylonia. Its certain identification marks it as a discovery of great importance to Babylonian Archaeology.

The simple discovery too, that crude bricks were stamped in very ancient times explains a matter that has greatly puzzled me and we hope that in the near future it may lead to the solution of the priority and succession of the earliest known Kings, and to the discovery of rulers still unknown to us.

The face of the wall was thoroughly exposed to view down to its foundation, which was laid on solid clay below the water level, by some two feet.

The foundations of the wall were built of worked clay mixed with cut straw, and laid up en masse with roughly sloping or battered sides, to a total height of sixteen feet. This base is about thirty five feet wide on top, and forms the true foundation of the crude brick wall.

Directly upon this foundation or base, Naram Sin began to build his wall, of stamped bricks, thirty five feet wide, and six courses high.

For some reason unknown to us, the builder changed his plan at this point, and widened the wall by an addition of about ten feet in the thickness to the inner face of the wall making an entire thickness or width of the wall about forty five feet.

Upon this new or widened base a new wall of equal width was built to an unknown height, by Naram Sin, whose stamped bricks attest his workmanship.

In the construction of the original base, sixteen feet high, and thirty five feet wide, there is nothing to furnish a clue to its authorship.

Had the superstructure been built upon the original base, as it was begun, it would naturally appear that the entire structure from its foundation was the work of Naram Sin. Yet because Naram Sin changed the proportions of the wall, it may with some show of reason be assumed that Naram Sin himself began to build upon the foundation of a predecessor, perhaps of his father Sargon, with the intention of completing the original design, and that his own ideas then began to fix upon a different, or at least a larger plan, requiring a wider base to build upon. Though the plan is hidden in the mists of ages, it is by no means impossible to form a reasonable conjecture from the new facts in evidence.

Great numbers of solid and hollow terra cotta cones in great variety of form and color were found scattered throughout the debris that had collected at its base. Among the cones were also found fragments of several water spouts of terra cotta, homologous to the classic gargoyle in Greek architecture.

There can be no doubt that both cones and water spouts were used in the wall and its parapet, or in the superstructure built upon the wall.

If in the absence of more positive evidence, one doubts or denies the existence of buildings on top of the wall, he must at least account for the water spouts by supposing that they conveyed the drainage water from the flat summit through openings in a parapet erected on the edge of the wall. The cones would then be used in decorating the upper part of the wall, to relieve it of its dull monotony.

The spacious summit of the wall would unquestionably have been used as a summer sleeping place for pilgrims. Such elevated sleeping places are everywhere provided throughout Babylonia, and were equally esteemed by the earliest people of the land, so far as we have knowledge of their habits and architecture.

The great numbers of cones and water spouts may perhaps be sufficiently accounted for, by the requirements of decorations and drainage of the wall as a fortified rampart, but only the existence on its broad summit of buildings of some kind can, I think, adequately explain the addition made by Naram Sin to the original thickness of the rampart.

Allowing the existence of superimposed buildings on the spacious summit of the wall, it is natural to suppose that the ornamental cones were used to decorate the walls of such buildings rather than they were employed to adorn the face of a rampart or mere wall, for defence. The water spouts would be required in either case to drain the roofs of the buildings or wall of rainwater in the winter season.

There was abundant space on the top of the rampart for a double row of buildings with a street between them, or, what seems more probable, a single tier of rooms flush with the outer face of the wall, and a broad terrace before them overlooking the great enclosure or court of the immense caravanserai, filled with the swaying multitudes of men and animals.

The terrace in front of the rooms offered admirable sleeping quarters for the host of worshippers at Bel's most sacred shrine. In winter the rooms, and the roofs in summer, would naturally be appropriated by the people of rank and influence, while at all seasons of the year, and in all conditions of weather, the lower classes of people would camp in the great open space below, with their camels, their horses, their mules and their asses.

The wall, whose foundations have been examined with so much labor, was built, not to defend an inhabited part of the city, but to enclose and defend an immense space adjoining the Temple Enclosure on its northwestern side for the protection and comfort of the hosts of pilgrims who must have gathered there in thronging multitudes to justify the setting apart of so enormous a space for their convenience, for this was nothing else than a caravanserai of gigantic proportions. It was in form a quadrangle measuring 450 yards in length and 300 yards in breadth and covered more than 26 acres of ground, all of which was available for the use of men and animals. I have seen no evidence of rooms in any part of the space below, nor do I think that the enclosed space was cumbered with buildings of any kind; but that it was occupied by caravans and their drivers together with the poorer people, who in all ages are wont to cling by night to the animals that bear them by day. Such is the custom of the people today.

If it could be proven from a more minute examination that there were no rooms nor permanent shelter in any part of the great enclosure such a fact would be a strong negative argument for the existence on the spacious walls of a tier of guest rooms as was suggested above. The closest search has so far failed to discover the first trace of lower rooms around the great court.

If an Oriental caravanserai were to be built today, with walls of thirty feet in thickness, a tier of rooms would be built upon those walls and the excess of width in the walls would become a useful terrace in front of the guest-chamber.

This is a type of building still used in this land, where from age to age nothing changes. It is the heritage of a remote antiquity. It was not especially bequeathed to this age, nor to any particular age, but to this land in all ages and all generations. So much we know. Yet we do not

certainly know when the type originated. Why, however, should it not have originated at perhaps the most ancient, the most venerated, and most visited shrine of antiquity; at a place and time when that style of building met the requirements of pilgrim travel in a hot country, infested with robbers, and swarming with insects? We are not required to look for a great or striking invention. The suggestion is the natural result of studying the conditions of the time, the place, and the requirements, first, of protection, second, of shelter.

That the wall was built for defence, there can be no doubt. Its original proportions were the proportions of a strong bulwark for those times. The walls for defence were doubtless provided in those early times with battlements and turrets built on the outer edge of the wall, while the greater part of its broad surface overlooking the enclosed space was a terrace, where the relief guard slept by night, and the soldiers manoeuvred in case of attack.

The line of turrets on the bulwarks of a city, would suggest a row of rooms in the caravanserai for the use of pilgrims. A story of rooms placed upon the walls would have increased the height of the rampart. A line of turrets might also have been built upon the house tops, or battlemented roofs would have given ample space, protection, and vantage ground for defending troops to manoeuvre at will.

Giving rein, for a few moments to the fancy, in strict accord with the laws of logic and science, one might picture Naram Sin walking in the cool of the day upon his unfinished wall, contemplating the finished caravanserai. He had only laid upon the massive foundation or base, six full courses of moulded bricks; but the wall now stood at least fifteen feet above the level of the plain, and its finished appearance passed in panoramic view before his imaginative vision. Perhaps he was especially thinking of a line of guest rooms to be built for winter use around the borders of the mighty court, whose uncovered space exceeded 26 acres. Under his royal feet stretched away the splendid terrace in a circuit of nearly one mile. Whatever other provisions were to be made for the comfort of weary pilgrims, this terrace at a higher altitude was to be the summer sleeping quarters for the travellers.

For six months or more every dweller in Babylonia sleeps in the open air, and takes special delight in high places, where the breezes cool the brow and drive away the pestering insects. As the evening breezes fanned his own temples, still throbbing from the heat generated within by physical exertion, and absorbed from without by contact with the heated plain, the humane monarch could but think with pride of the substantial comfort in store for his countless guests, whose lips would never cease to sing his praises, while their gratified hearts would respond in deeper chords to the spirit of a deeper, truer, sincerer worship.

Prolonged meditations of a similar character led to the wish to make the guest chambers equally comfortable for his guests. The desire brought forth the suggestion, and the suggestion was quickly followed by the decision to place the guest chambers upon the top of the wall and to widen the terrace in front of them. The chambers were doubtless placed on the outer edge of the wall and the usual battlements rose from the flat roof of the guest chamber. Having decided upon this plan, the haughty King forthwith widened the foundations of his already magnificent wall in the manner related in the foregoing pages.

Whatever one may think of the above theory, he cannot deny that it gives a reasonable account of the possible history of the growth of the enormous caravanserai of Babylonia and adjacent hot countries.

The construction of so gigantic a building by Naram Sin, clearly proves that even at that remote period of time, not yet dreamed of by our forefathers, the worship of Bel had become well established in the land; that his shrine at the ancient Nippur was then famous; and that great multitudes of people resorted hither to worship at his most sacred shrine.

This greatly increases the importance of the early history of Tel Anu (*sic*) or Nippur both as a seat of religion and the residence of Kings in the earliest times.

If the friends of the expedition feel disappointed because no older foundations could be identified beneath Naram Sin's well known bricks, they should not forget that the very purpose of the building, placed beyond the previous limits of the city, make it impossible that it should be identified with the earliest history of the city; it belongs rather to the days of her greatness and glory.

No such stupendous building would be built until the tide of travel had already justified its existence.

That great King and mighty builder Ur Gur, repaired that building upon its original foundations, nor were its borders ever enlarged, indicating, though by no means proving, that the tide of travel as established in the earlier reign was never greatly exceeded at any later period of history.

At the present time no important construction of wall or edifice within the Temple Area, can be identified with the name of any King of the Sargon dynasty.

The twenty five brickstamps of King Sargon which have been found at different times, within the Temple Area, indicate that important constructions of that King once existed in some part of these mounds. It cannot with reason be doubted but that abundant ruins of his constructive skill will be found before the Temple Enclosure shall be thoroughly explored. Indeed it is almost certain that extensive buildings of Sargon and of his son exist somewhere within the vast accumulations of the Temple Hill.

Where are we to look for such constructions? Shall we find them toward the northern corner of the Temple Enclosure? Certainly it appears to have been the most imposing corner and for some undiscovered reason, was the strongest point of the fortified enclosure even down to the time of the great rebuilding of the ziggurat in the cruciform style. When the Temple Area was enlarged the northern corner was rebuilt upon its ancient foundations. There was doubtless some reason which we do not now know, but which we can by exploration and study come to understand for this fact.

A pavement containing the stamped bricks of Sargon and Naram Sin was found and several times mentioned during the summer and autumn of 1894. I have now come to regard that pavement as the work of Naram Sin himself. It is true that the great crude brick platform of Ur Gur practically rests upon that pavement; but in the enclosing wall of the caravanserai the bricks

of Ur Gur lie directly upon the bricks of Naram Sin, showing that the relation of the pavement to the later platform in the former instance does not weaken the evidence of the inscription found in the pavement itself.

There would seem to be greater reason for scepticism of authorship in pavements than in more solid constructions, and indeed in all departments of archaeological research a well-tempered conservatism will avoid many errors for others first to stumble over and then to correct. However, unless contrary evidence shall be obtained, we may henceforth regard this pavement as the work of Naram Sin, and for the present this may be treated as an established fact.

Above this pavement were 38 feet of constructions and debris, while below it are 30 feet of accumulations. If, then, this pavement is the work of Naram Sin, and we have no standing ground to challenge the statement, a most difficult problem awaits solution by the chronologist of future generations, a problem not to be slurred, nor readily solved by the conceit of man: when and by whom were the first settlements made at Nippur?

It will require the united efforts of many generations of devoted philanthropists and scholars to ravel and write the outline of the history of this time honored city; yet I am by no means assured that the present generation will not declare its golden age to include the reigns of Sargon and Ur Gur, beginning with the former and ending with the death of the latter, or soon after that event.

This will appear to some a startling thought; to others wholly wild and visionary; but when the facts are gathered there will be found many proofs, if I rightly interpret the influence of those epochs in the growth of this city and in the development of its art as traced in these hoary mounds, replete with the marks of time.

The archaic altar stands just below the level of Naram Sin's pavement, though the pavement never covered it. The primitive curb in front of the altar extended far under the pavement and was three and a half feet below it. The top of the early arch was buried under eleven feet of earth directly beneath this self same pavement the bottom of the arch resting about four feet lower still. The early edifice, 23 feet square, underlying the eastern corner of the ziggurat lay immediately below this pavement. The age of these objects can only be conjectured at the present time; but it is safe to think of the latest of them as antedating by more than a single century the laying of the pavement, and what shall we say or think of the hoary arch in its archaic splendor with its eleven feet of super-incumbent earth to separate it from the still venerable pavement of a King who was but recently known?

The terra cotta water-cocks were found on the level of the higher part of the arch, and a well-wrought copper nail was found in the same level, and belongs to the same early time, anterior by many centuries to the time of Sargon, if we may trust our deductions concerning the pavement.

In describing the wall of Naram Sin, mention should be made of the discovery of a bubbling spring at the foot of the enclosing wall of the caravanserai. On either side of the spring are still seen the brick platforms and curbs where the water pots rested.

The bricks have not yet been disturbed; but they appear to be the half bricks of Naram Sin measuring  $15\frac{1}{2} \times 15\frac{1}{2} \times 3\frac{1}{2}$  inches, the half brick being less than one half the width of the whole



brick to allow for mortar between the edges of the two halves which would then equal in surface a whole brick. The spring was on the northeastern side of the great open court, and was neither covered nor enclosed in early times.

After the court had become filled to a depth of about three feet, a diagonal wall of burned bricks, eighteen feet long, and six courses high, placed on a raised base of clay, was built before the spring, to divert the course of drifting sand and debris from the spring back into the court. The wall was built of small bricks, closely resembling the bricks of the nineteenth century. They measure  $8 \times 3 \frac{5}{8} \times 2 \frac{3}{8}$  inches in average dimensions, differing but slightly in size and proportions from the bricks used today in the cities of the new world.

There is no clue to the origin of these bricks. It is certain that they belong to early not to later times, and they are the smallest Babylonian bricks that have ever been discovered. Comparing these with the large burned bricks measuring  $20 \times 20 \times 3 \frac{1}{2}$  inches, we seem to have the extremes of size in the art of Babylonian brick-making. The discovery of the smaller bricks is a great surprise to me and gives point to the expression that "There is nothing new under the sun". Even fortified with this trite saying, one is scarcely prepared to find that the mould for making modern bricks has been handed down to the present day with but little change from the earliest times. Yet precisely such a thing has happened in more than one instance. Our own foot measure is a heritage to us from ancient Babylonia, and differs but little from the older unit of measurement.

Joseph A. Meyer.

It was our rare good fortune while in Baghdad to secure the services of Mr. Joseph A. Meyer of Canton, Ohio; a young man of thorough training in architecture, and varied experience in the study of living monuments in the countries of Europe, Egypt, Turkey and India.

He was a graduate student in the department of Architecture, Massachusetts Institute of Technology, Boston, and held a travelling fellowship for two years, and was a candidate for an advanced degree. Mr. Meyer proved to be a good and efficient worker, a companionable fellow, and rendered great service to the expedition. Too much could not be said of his devotion to its every interest so long as physical strength endured.

Throughout the long, hot and trying summer Mr. Meyer's strength was equal to every demand made upon it, and it was not until the fierceness of the heat had abated in the month of October, and the cooler nights had brought the chilling mists and blue vapors from the boundless marshes of Afajland, and had laid under tribute to Prince Miasma many a robust Arab, that Mr. Meyer's health suffered the first shock of disease. However complicated his disease may have become, there can be no reasonable doubt that its origin was due to exposure to the malarial atmosphere of the night, with a tendency to neglect the proper precautions of clothing and sleeping.

Day by day his physical powers of endurance gave way, until his lymphatic system was reduced to great weakness. It was absolutely certain that without medical treatment, there was no hope of permanent recovery. His condition was critical, and although it seemed a serious matter to send him to Baghdad, it seemed a more serious matter to keep him longer at Niffer. He was

accordingly sent away on the 23rd. of November 1894, under the care of the cook, and the most faithful of the soldiers, and committed to the professional care of Dr. Sundberg, U.S. Consul at Baghdad.

Mr. Meyer was carried in a chair from our house to the water's edge, and comfortably placed in a boat for Hillah. From Hillah he was to be carried in a covered litter, if one could be secured, and a swift messenger was to be dispatched from Hillah with a letter to Dr. Sundberg.

I saw him comfortably lodged in the boat which was to carry him to Hillah, but could go no further with him, and under God's care, committed him to the hands of others.

Aside from the matter of companionship, which has a double meaning and value to one isolated from all civilized men, Mr. Meyer's services were especially needed and consciously missed every hour of each working day during the remainder of our long and lonely days at Niffer.

A letter dated at Baghdad on the 2nd. of Jan. 1895, announced the death on December 20th. and burial in the little English cemetery on the following day, of Joseph A. Meyer, aged 38 years. The loss to the expedition was far exceeded by the personal loss to myself, of an efficient helper and a genial companion, whose life was exceptionally free from every form of evil.

The whole influence of his noble life, in every act and word, was cast on the side of virtue, purity and right. The tenor of his speech was uplifting, nor can I recall a word nor act of his that need make him blush in the presence of his Holy Maker and Righteous Judge.

### Oldest Civilization.

From the vast accumulations of later ages, from the comparatively high foundations of Ur Gur's monuments, from the excellence of still more ancient ruins, and from many other indications of lesser importance, it is becoming more and more apparent that in very early times, the ancient city of Nippur was the chief metropolis of Chaldea, and possibly was the residence of her earliest Kings.

If this be considered a visionary thought, there is abundant and rapidly increasing evidence to the highest antiquity of the primitive city, whose foundations still lie concealed under the venerable and hoary civilizations, which have successively followed in due order of events. And let us hope, that the city now in process of excavation, will yield results of great value to History and Art and all allied sciences, so far as they may help to explain the beginning, growth, and decay of this most ancient of great cities, whose importance and antiquity ever assume larger proportions, as its vast accumulations of debris slowly reveal, in broken accents, it is true, but yet in clearly enunciated syllables and catchwords the story of its unwritten history and life, of its people through uncounted ages.

At different times and in different places, but always above the great platform on which Ur Gur placed the foundations of his temple, have hitherto been found several brickstamps and Doorsockets of King Sargon, who is just emerging from the mists of uncertain history, and seems to be steadily marching down the ages far from the primitive civilization of the human

family, without in any degree lessening the mighty spans of millenniums and centuries that separate him by a dignified and hoary antiquity from modern times; and yet by the excellence of his work, and his correct knowledge unite him more closely to the spirit of our times. I cannot doubt but that a complete exploration of the Temple Enclosure would give us many more facts of Sargon's life and work.

Below this same platform and nowhere else several of Sargon's bricks were found out of their original position, and no clue has yet been discovered to the origin of these bricks, nor can we identify any construction of his.

It is very plain that Sargon's constructions lie below the Ur Gur platform, and it is equally clear that both his Door-sockets and brickstamps were for a long time preserved, and appropriated by his followers.

So many small objects were found in the body of the large crude bricks used in the construction of the ziggurat, that one is irresistably led to the conclusion that the people cast into the soft clay pit, or more probably into the bricks while they were being moulded, their amulets and other small objects of religious significance, just as at other times the people cast their amulets and ornaments into the foundations of palace walls and temples, as an act of piety in the dedication of an important building.

Near the northern corner of the ziggurat in its second stage was found a copper nail whose head was covered with thin beaten gold. A gold bead was found on the northwestern side in the same stage, and besides these, many other articles of no special interest in themselves have been found. One of the strangest of these stray articles found about one foot below the skulls embedded in mortar, was a fragment of green glazed pottery, similar in color, but in quality superior to the green glazed pottery of the latter part of the middle ages and of more modern times. We have thus acquired good proof that this green glazed pottery of later times had its origin in ancient art, though when it was first produced no one can say.

Another fragment of red pottery and a fragment of a bronze axe blade show a decided Greek influence. A rudely inscribed vase fragment of marble was also found embedded in the mortar, and besides these rude seals, beads, and ornaments in great variety were found both in the moulded bricks and in the clay mortar joining the bricks of the last reconstruction of the temple.

In all this mighty maze of over lapping and interlacing constructions, that has been gathering through unnumbered generations of the children of men, it is impossible to produce results as rapidly, and as regularly, as if the accumulated debris were only sufficient to preserve the buried records and works of historic art from the decay of wind and weather. But the progress so far made on the temple is satisfactory, and when the exploration shall have been completed, I trust the results will justify to the promoters of the expedition, the prolonged labor expended on the exploration of his beloved E-Kur as restored by the greatest of the so-called monumental Kings, whose name and fame will evermore be inseparably connected with the ancient city of Nippur in the days of her ascending glory.

Several months of earnest thought and unstinted labor have already been cheerfully given to the study of the stages of the ziggurat, with the conviction that its complete exploration will promote the study and increase our knowledge of the history of Babylonian art in its more ancient forms.

I should like to see systematic excavations, to extend over a period of three years, undertaken on the temple enclosure, not to be excavated section by section, but carried down as a whole to distinguish the different epochs of its history, each well defined level to be thoroughly explored, sketched, photographed, and described, before the excavation of any part should be carried to a lower level.

This method would be more satisfactory, and less likely to lead to confusion of strata and levels, but it will require the expenditure of money, time and labor.

### The Ziggurat.

The rectangular ziggurat of Ur Gur is a solid mass of crude bricks, with a peripheral foundation of burned bricks, four courses high and eight bricks wide, or approximately one Babylonian foot in height and eight Babylonian feet in breadth.

The entire ziggurat, including its peripheral foundation of burned bricks, was solidly built upon an immense platform, varying in thickness from seven to eight feet, of crude bricks of the same color, texture and mould, as the bricks of Ur Gur's superimposed ziggurat.

This great platform constituted the Temple Enclosure, and formed the pavement of the court itself. On each of its four sides the platform was bounded by an enclosing and fortifying wall, in which there were several towers and bastions. The so-called "Tower numbered 63 on the large map of the Temple and its environs proves to be a later bastion built upon an original foundation in the enclosing wall of Ur Gur's time, and marks the limits of the great court not only in the time of Ur Gur but also the days of Sargon and his predecessors.

Whether at that early date there was an outer and an inner court is a subject for future investigation, and upon which I would offer no theory at the present time.

There can be no doubt that the immediate space about the ziggurat, known as the court of the temple, was in early times a fortified enclosure, as indicated by the number, position and form of the bastions in the enclosing wall of Ur Gur's time, and which in a thorough exploration of the Temple Hill will be laid bare and the full scheme of the fortified enclosure established in detail.

In the massive strength and grandeur of its proportions the ziggurat of Ur Gur, that versatile and energetic monarch whose name has become a household word and whose fame glows with a brighter lustre as one after another the monuments of his constructive genius and the handiwork of his marvelous skill become known to us---- the ziggurat with its architectural embellishments has become the central object of our pursuit and has consumed the greatest share of our time and received our first and chief care, while it attests the marvellous skill and genius of the builders and rulers of antiquity. As restored by Asshur-Bani-Pal the ziggurat, in round numbers measures

125 by 190 feet; its unbroken periphery measuring 630 feet, being slightly less than the dimensions of Ur Gur's temple at Mugheir or Ur of the Chaldees.

#### Constructions of Ur Gur and Naram Sin.

Superimposed upon the splendid wall of Naram Sin, and composing the ridge of the rampart, are still plainly visible, over thirty courses of Ur Gur's well-known bricks, identical in form, color, texture, and hardness, and of the same mould as the small crude bricks which compose the body of the ziggurat.

There is, in this rampart, no visible trace of any intermediate work between the time of Naram Sin and Ur Gur.

Likewise within the Temple Area there is no certain trace of intermediate work between the time of Naram Sin and Ur Gur, except in the single instance of the early storage room or treasury vault, discussed in another chapter.

The earlier vault seems to have been built by some monarch who lived between the time of Naram Sin and Ur Gur, yet the latter builder built directly upon the pavement of Naram Sin the solid crude brick platform which supports the splendid mass of his (Ur Gur's) towering ziggurat.

The pavement of Naram Sin within the Temple Area consists of two courses of bricks. The lower course contains many thumb-marked bricks  $11 \times 7 \times 2$  inches. These bricks belong to a period between the use of the primitive bricks of the very ancient curb and the time of Sargon. It is these bricks which were mentioned by Dr. Peters under the western corner of the ziggurat in the year 1890.

Besides these unknown bricks the lower course also contained imperfect bricks of both Sargon and his son. The upper course was composed wholly of the bricks of Naram Sin and of his father in the ratio of about three of the former to one of the latter. Some of those noble bricks  $15\frac{1}{2} \times 15\frac{1}{2} \times 3\frac{1}{2}$  inches to  $16\frac{1}{2} \times 16\frac{1}{2} \times 3\frac{1}{2}$  inches in measurement were colored red. The color slowly faded after exposure to air and sunlight.

#### Crude Bricks of Ur Gur.

Crude bricks vary considerably in each of their dimensions. Moreover, the roughness of their faces and edges, as compared with burned bricks makes it impossible to give exact measurements.

The late Mr. Meyer in his notes gave their approximate dimensions of Ur Gur's crude bricks as  $9 \times 6 \times 3$  inches.

Having measured hundreds of them I find them to exceed the above measurements; but I have found no specimen to agree in three dimensions with the measurements in round numbers adopted by Mr. Meyer. I have found hundreds of specimens approximating ten inches in length,

and others nearly seven inches wide. Their average may be accepted as  $9\frac{1}{2} \times 6\frac{1}{2} \times 3\frac{1}{2}$  inches. Yet it is convenient to speak of them in round numbers and we shall use the measurements adopted by Mr. Meyer. In the picture before us, the eye quickly discovers the roughness and variance of the bricks and at the same time, may test the general accuracy of my measurements; for, knowing the height of the arch one may count the courses of bricks, and making allowance for the mortar between them a close estimate of the thickness of the bricks themselves can be made from the picture.

In the manufacture of these bricks, which were made in almost countless numbers, many moulds were doubtless used. The moulds appear to have been made as everything else in this part of the world is today made, without attempt at precise measurement, and the brick moulds under discussion, prove the antiquity of the present method of "Thumb measurement," and measurement by the eye. Such a measurement is the cubit.

"Cubit."

For larger measurements the cubit from the fingertips to the elbow is still employed, and when applicable, the outstretched arms, from thumbs end to thumb's end measured across the chest is considered as four cubits. These are the measures of the country still in use, and while the average can be ascertained, and exactly stated in terms of modern standards of measurement, in actual practice measurements vary (*sic*) slightly with the persons who measure the article.

The Oriental has a quicker conception of the rough and approximate methods of his ancestors, employed from the beginning of the world, than he has of any fixed standards, to which all measures must be referred.

#### Construction of Platform of Ur Gur.

The so-called platform of Ur Gur was built of crude bricks of the regular size carefully laid in regular courses in a mortar of tenacious clay under all the super-structures of that period, which the platform was designed to support. Under the open court of the Temple Area, the platform was made of large lumps of kneaded clay brought from the clay-bed, and, in a moist condition, laid up en masse, in two thick layers of about four feet each in thickness as garden walls are often laid up en masse at the present day, in all parts of Babylonia and in many portions of Syria and Asia Minor.

Considerable numbers of tablets were found between the layers of the platform. It would seem as if the tablets and other inscribed objects found within the body of the platform were cast into the new foundations in dedications of the rebuilt temple, a customary rite in the dedicating of any ancient building and more especially of a religious edifice such as was the famous Temple of Bel.

#### Court of the Temple.

It is made evident that the space excavated by us to the southeast of the temple was a large, open, paved space in its front, included within the temple precincts. It was an open space before the time of Ur Gur; it was an open space in his day, and so it continued to remain until after the time of Asshur-Bani-Pal, and, perhaps until about the time of the great cruciform additions were made to the ziggurat, it remained an open space possibly for the assemblage of the common people. In later times, when the temple was rebuilt, the court of the temple was over-built perhaps for the residence of the priests.

There is good reason to believe that the space, now deeply covered with rubbish, to the northward and northeastward of the great excavation, is thickly studded with constructions on the level, and even below the level of Ur Gur's hoary ziggurat.

#### Relative age of Arch, Altar and Ziggurat.

Directly upon the pavement of Naram Sin is placed the great crude brick platform, eight feet thick, of Ur Gur. Below this pavement no bricks of Sargon or of his son Naram Sin have been found, nor have any brickstamps of Sargon been found below the same pavement, nor any trace or suggestion of Sargon's work.

It should be noticed that this pavement, whether made by Naram Sin or by a later King, re-using the older bricks, is the level of the top of the lower edifice underlying Ur Gur's platform; that it is three feet higher than the ancient altar, and that it is eleven feet above the foundation of the lower edifice, and fifteen feet above the bottom of the early drain and arch. The true Sargon level must be found in the level of this pavement; or at some point immediately below it, not above it, which is impossible. The great number of Sargon's brickstamps that were found in the precise level of the pavement while below it no trace of Sargon has been found is presumptive proof that the pavement of Naram Sin marks the true level of Sargon and his son who succeeded him. I would emphasize this point in order to correct a possible wrong impression that the Sargon level is above the Ur Gur platform, where the Door-sockets and brickstamps of that King were found in the winter of 1890.

The altar, the curb, and the lower edifice, and the drain and arch, are all much older than Sargon and belong to dynasties of Kings long anterior to the time of Sargon; but by whom they were built, must, I think, long remain a mystery.

The water vents were also found in the loose earth on the level of the foundation of the lower unknown edifice which fact gives to them a venerable antiquity. They must precede by at least several centuries the time of Sargon the first, or, as his name ought to be written, Sargon the Great.

#### Conduit.

After the very ancient Archaic arch discovered within the precincts of the temple one of the most important discoveries in Babylonian architecture is the drainage system of Ur Gur's

venerable ziggurat. The body of the ziggurat itself was built of crude or sundried bricks in several solid stages.

In the middle of the lower stage of the ziggurat, on its southwestern side, in a perfect state of preservation, was found a conduit of kiln-burned bricks. Its office was to convey the rainwater that fell upon the terraces of the great ziggurat in channels of burned brick to the gutter below, and to a safe distance away from the perishable mass of sundried bricks. In appearance it was a double columnar structure of kiln-burned bricks with a central strengthening block slightly above its middle point. It was built into the body of the ziggurat flush with its face. Both face of the ziggurat and of the conduit have a batter or slope of one in four, or three inches in one foot.

Figure 20 gives a sketch in perspective of the face of the conduit as it was discovered in the façade of the massive and venerable ziggurat.

The lower platform of sixteen courses of kiln-burned bricks, in front of the more imposing conduit at its base, did not belong to the original structure; but was around three sides of Ur Gur's building by one of the Cassaeen (*sic*) dynasty of Kings. This seems for several centuries to have remained an open platform, or a sort of basement terrace, and finally to have been used as the base of his casing wall of burned bricks by that alien King Asshur-Bani-Pal, who while restoring, thus enlarged, the borders of the temple, whose foundations appear to have been partially buried at that time under the accumulations of many centuries.

Figure 21 gives front elevation, plan and longitudinal section of the conduit drawn to scale.

A. represents the platform or basement terrace referred to above.

B. is a later construction, built across the conduit upon the lower and older platform underlying it.

Coincident with the building of this structure by Asshur-Bani-Pal the lower part of the conduit to the height of 11 feet to the base of the central strengthening arch C. was filled with kiln-burned bricks, among which was several stamped bricks of Asshur-Bani-Pal.

C. is a strengthening arch, or block, carefully bonded into the main structure at the point where it offers greatest resistance to the lateral inward pressure of the crude brick mass of the ziggurat in which it is embedded.

The relative position and size of this central strengthening arch or block is best understood by referring to the elevation and section on Fig. 21. The arch marked C' is 3 feet and 8 inches long on its top, and at this point the depth of the conduit from front to back is 10 feet inside, and 11½ feet outside measurement, and the vertical height inside and outside respectively are 20 and 20½ feet.

The bottom of the conduit as filled at the time in question, is very nearly on the same level as the bottom of a similar conduit, rebuilt on the northeastern side of the ziggurat by Asshur-Bani-Pal himself on a more pretentious plan, respecting its face; but of inferior dimensions, from front to back, being wholly contained within his casing wall which has an average thickness of six feet. This was built upon a platform, which is evidently a continuation of the platform A. on the



opposite side of the ziggurat. It was therefore placed in front of, and above, the base of a ruined conduit, identical in plan, dimensions, and construction, with the conduit described above, and which was the work of the same great King and builder, Ur Gur.

Its ancient orifice is still seen to pass through the basement terrace of the Cassaeon dynasty, as shown in Fig. 4, directly under the later conduit of Asshur-Bani-Pal, in which, what appeared to be the crowning arch of a niche, is now clearly seen to be the central strengthening arch or block, of a conduit in imitation of the worthy example of his illustrious teacher, whose noble work had not yet been surpassed, if indeed it had ever been equaled, though two full millenniums had rolled away since the great teacher, builder and King, had bequeathed to succeeding generations the monuments of his skill and glory.

Those two conduits are similarly placed in the centres of their respective sides, and the perfect conduit, whose explorations in the southwestern façade of the ziggurat has (*sic*) been satisfactorily concluded, is found to resemble in all essential respects, the constructions discovered by Mr. Loftus in the centre of each of the four sides of the Bowariyeh at Warka.

There is no evidence in his description to show that Mr. Loftus made a thorough examination of the construction at its base of which he writes as follows---p. 167.---“On excavating at its basement”--- basement of the edifice---“there was discovered on the centre of each side a massive buttress of peculiar construction, erected for the purpose of supporting the main edifice.”

From this it would appear that Mr. Loftus was misled by the natural impression that this construction was, and could be nothing but a buttress, because of its position in the centre of the façade, and because of the batter or slope of the face which, like its counterpart at Niffer, was undoubtedly made to correspond with the batter of the ziggurat, into which it was built.

It would also appear that for this reason Mr. Loftus failed to sufficiently examine the interior and bottom of this construction, which precaution would have given him a correct idea of its purpose in the construction of the ziggurat.

So far as Mr. Loftus gives the details of his construction, it occupies the same position in the ziggurat, is identical in plan, and construction, and shows remarkable correspondence in all its measurements to the conduit described above. Moreover the stamped bricks at Niffer and Warka used in the construction of the conduits prove that both structures were the work of the same King, and it is therefore reasonable to suppose that both structures were built for the same purpose.

The stages or terraces of a ziggurat like the Bowariyeh at Warka or the Temple of Bel at Niffer, present to the open sky an aggregate surface of about half an acre for the latter and a greater area for the former.

Though the annual rainfall in lower Babylonia may be less than that of many other countries, yet it not infrequently happens that the wintry rains descend in torrents such as to temporarily submerge extensive tracts of country.

It is therefore of the greatest importance that these high ziggurats, built of perishable, sundried, bricks, easily dissolved if soaked in water, should be provided with ample and substantial drainage, equal to the greatest demands that shall ever be made upon them.

Such a system of drainage we have found at Niffer, and a not inferior system of drainage at Warka, was essential to the preservation of its crude brick ziggurat. Mr. Loftus found the complete system of drainage at Warka but failed to recognize it, and we may add that the conduit is a feature of Babylonian architecture hitherto unknown to history. It may have been the creation of Ur Gur, to whose knowledge skill and experience as a great builder this conduit is a fitting memorial---an enduring monument, of the highest utility for the preservation of the stately ziggurat.

### Lower Edifice.

The lowest and most ancient edifice underneath the eastern corner of the familiar ziggurat of Ur Gur was partially examined by tunnels, driven along the outer face of its walls.

Contrary to expectations it was found to be a comparatively small and, so far as we can discover from the existing excavations a separate building having an equal length and breadth of twenty three feet with a symmetrical and double re-entrant angle at its northern corner. It is built up solidly like a tower and its exterior surface shows no trace of a door or opening of any kind.

Its splendid walls, eleven feet high, were built of large crude bricks, each measuring one foot six-and-a-half inches in length and breadth, and varying in thickness from three and a half to four inches.

The bricks were made of tenacious clay thoroughly mixed with finely cut straw, and well kneaded. They were also of good mould and in proportions, size, and texture, closely resemble the stamped crude bricks of Naram Sin, of which they are the prototype, and which they doubtless precede by at least several centuries.

No clue to their identification has yet been found. The bricks have not been sufficiently examined to prove that none of them were stamped, and reasoning from analogy, it is not unreasonable to suppose that some of them were stamped like the crude bricks of Naram Sin, in the walls of the caravanserai.

The batter of its walls is three quarters of an inch to the foot. The design of the building is not yet evident. Nor can we suggest the era of its construction.

Given time and moderate expense of labor, the construction of the most ancient temple can be sufficiently determined to prove its main features. We do not know the origin of the staged temple and without further investigation we shall never know whether the temples of the Sargon dynasty were placed on a single elevated platform, or upon the summit of a staged tower.

For aught we know to the contrary Ur Gur may have been an usurping foreigner who introduced the ziggurat into Babylonia, though one would gladly believe that he followed the

general plan at least if he did not copy the model of the more ancient temple when he raised his imposing edifice on the foundations of his great predecessor.

#### Storage Room or Treasury Vault.

In the enclosing and fortifying walls of the Temple Area on its southeastern side, partly above and partly below the level of the court of the temple, was built a room whose construction indicates it to have been a storage room or treasury vault for the safe keeping of the treasures, vessels and archives of the temple.

The room, which had no door in its unbroken walls, is thirty six feet long, eleven and a half feet wide and its walls are eight and a half feet high. Some two and a half feet above the floor of earth a ledge one and a half feet wide, extending entirely around the room, and built up in conjunction with the walls of crude bricks, evidently served the purpose of a shelf for the storage and safe keeping of treasures, vessels and archives in due form and order.

Beneath the bottom of the walls, which are built of the bricks composing the body of the ziggurat, is a layer of earth and debris two feet deep, and below the debris are the unbroken walls of an earlier room of the same form, but slightly less in each of its dimensions, than the latter room built over, and yet not directly upon, the walls of its prototype, thirty two feet long by seven feet wide.

The ruined walls of the lower and earlier structure are three feet high and were built of the same crude bricks, of which the higher and later structure was built over them, while it was separated from them by a stratum of earth and rubbish two feet in thickness. The later structure was built upon the level of the Naram Sin pavement. The ruins of the earlier structure lie wholly below that level, and are covered with two feet of debris.

Within the walls of the lower and earlier structure were found four brickstamps of Sargon in the same level, or slightly below it, that has, in other parts of the Temple Area, produced the relics of the same King. It is probable that these had been preserved among the archives, and that when the latter were carried away, the brickstamps were left with the remnant of tablets which were found on the ledge of the later room.

Directly underneath the eastern corner of the earlier room or vault, a brickstamp of Sargon was found embedded in the debris upon which the walls were built five feet below the level of Naram Sin's pavement, and the stratum that has produced nearly all of the discovered relics of King Sargon. The finding of Sargon's brickstamp at that particular point proves two things: first, that the earlier structure was built by some one after the time of Sargon, and probably after the time of Naram Sin; second that the earlier structure was a vault built partly or wholly below ground since it was probably built after the time of Naram Sin, while its floor of earth was five feet below the pavement of Naram Sin.

If we consider the matter of constructions in connection with the facts herein stated it is evident that some King subsequent to the time of Naram Sin built the earlier vault in the body of the

fortifying wall and placed it chiefly below the level of the court of the temple. It is also clearly evident that the structure fell into a ruined condition and was rebuilt probably by Ur Gur himself when its walls, eight and a half feet in height, were wholly below the level of the temple's court.

It was wholly a vault or underground storage room in the time of Ur Gur, and was doubtless entered from above by means of a ladder stairway or other perishable passage of which no trace could be found. In the earlier and later vaults the crude bricks were of the same form, size, and general appearance and belong to the same epoch in the manufacture of bricks, though they were made by different Kings as shown by slight differences in the color and texture of the bricks which roughly measure  $9 \times 6 \times 3$  inches in their several dimensions.

Both in the walls of the caravanserai and in the structure of the temple, the bricks of this period or epoch, lie directly upon the foundations of Naram Sin and continued to be used until the time of Ur Gur. Ur Gur himself made and used the bricks of this mould. They were also used by some predecessor of Ur Gur's. No trace of these bricks before the time of Naram Sin has anywhere been found, nor have we been able to identify their use by any monarch after the time of Ur Gur.

While it is not definitely proven, it is however, reasonable to suppose that the lower or earlier structure was built soon after the time of Naram Sin, partly under ground, and partly above the level of the court at that time, and that the later structure was built by some one about the time of Ur Gur---perhaps by Ur Gur himself.

About one foot below the top of the walls of the lower room is the top of a hemi-spherical basin of pottery set in a rim of stone. No indication of its use has been noticed. We shall diligently search for other sources of information respecting the date and use of this structure, both in its earlier and later parts.

#### Drains and Ventilators.

Fig. No 1 shows the front elevation, and a longitudinal section of a construction, which appears to have been a drain of burned bricks, and resting upon it is a ventilator of light colored and porous terra cotta of the same soft, and friable texture as the unglazed sarcophagi or coffins of the so-called slipper pattern.

Both the brick drain and the terra cotta ventilator passed quite through the thick wall of its house to the street into the room contiguous to, and northeast of the room numbered 2 on the large "Plan of the Temple of Bel".

The bottom of the drain was slightly lower than the floor of the room which it drained.

The ventilator was one and three quarters feet above the floor of the first period in the occupancy of these rooms. A fire-place was made at the inner end or opening of this terra cotta tube, which at that time must have been designed to give draft to the fire within, or else its inner end was closed with mud at the time the hearthstone was placed at its inner orifice.

The absence of any trace of smoke within the tube proves it to have served for the ingress, and not for the egress of air, so far as it served any definite purpose at that time in the household economy.

A terra cotta tube, similar in all respects to the above ventilator was found to pass through the northwestern wall of room 104 at the height of nine feet above the floor of the room it ventilated.

Fig. No. 2 shows both front elevation and longitudinal section of another drain of ordinary type. It was built of burned bricks and gave drainage from a room into the street.

Reddened earth and an abundance of ashes, prove fires to have been made at one time at the opening of this drain within the room, although there was a well-made hearthstone with a fender of terra cotta in another part of the room. See Fig. *blank*

### Vertical Drains.

Fig. 128 (Mar. 1895) shows a part of a drain of large jars or pots. The mouth of each jar was placed upward, and a hole was made in the bottom of each jar, giving a continuous passage for liquids. Such drains frequently terminate in larger jars at the bottom. Not infrequently they end in a reservoir of bricks like the ruined reservoirs of bricks seen in photographs Nos. 272, 273, 274, and 275. This drain was found in mound X. and is not uncommon in this and other mounds.

Fig. 129 shows the exposed portion of a very deep drain whose bottom has not been found, though it has been followed for thirty feet from the top. Its orifice is in the closet of a Jewish house; the main portion of this drain is made of the regular drain tiles used for such purposes. Its upper part consists of three very large jars, which might mean that the builders of the Jewish house utilized an older drain, or that the upper part being soon broken, may have been repaired in this manner by the original builders of the house.

Fig. 130 is a good specimen of a vertical drain made of perforated tiles. This is doubtless much older than the Jewish period. Though it cannot be proven, yet this drain seems to antedate 1000 B.C. It may even be as old as 2000 B.C. Within the Temple Precincts there are vertical drains which antedate by many centuries the era of the Sargonid dynasty of Kings.

### Copper Knife and Nail.

Immediately below the pavement of Naram Sin were found a fragment of a copper knife and a copper nail of Sargon's era. The metal in the fragment of copper knife is sound. It is four and three eights inches long and its blade is one and five sixteenths inches in width. It was broken in ancient times and has apparently suffered little change from corrosion while buried.

The copper nail is perfect and perfectly preserved, and is well wrought. It is one and three fourths inches long. Both nail and knife were found below the level of Naram Sin's pavement. Their high antiquity is therefore beyond dispute. They belong to the era of Sargon the Great, Sargon of Agade, whose name and fame glow with ever increasing lustre, as we dig and delve

deeper and wider into the depths of those vast accumulations and overturn the successive foundations of structures whose mingled debris, testify by the greatness and solidity of their mass, to the growth, activity and decay of a great city. Unnumbered generations of men in their lives toiled to build the great city of Nippur and dying, having nothing else to give, gave their flesh and bones to crumble back to dust and increase the slowly growing deposits to which they had contributed in their lives and by their deaths.

#### Impression of Seal and Lacquered Pottery.

A fragment of black clay, bearing in relief upon its carved surface several human forms, and in greatest dimension measuring 5.7 centimeters was found at a depth of 23 feet or 7.1 meters below the so-called pavement of Naram Sin, in front of the altar and but little above the present water level. It was about 8 feet or 2.44 meters lower than the bottom of the archaic arch, and within about 7 feet of the lowest traces of civilization on the very ancient site of Niffer and hence belongs to the period of her unwritten history, and to the time of her youthful vigor in the practice of noble art, noble rendered. Its antiquity is, therefore, very great, and its value in the history of art cannot be properly estimated until we shall have finished the exploration of this venerable site, consecrated before the birth of written History to the worship of the great lord Bel.

On the same level was also found a small fragment of red lacquered pottery.

This almost tiny fragment of pottery, added to those already found, and reported, establishes the proof that lacquered pottery of great excellence was made in very early periods of civilization thousands of years before the artistic Greek attempted the same kind of work, in his rocky islands, and on the rugged coasts of Europe.

The ordinary potsherds of those lower strata, are, as a rule, of a quality superior to the potsherds found in those strata, which are subsequent to the time of Ur Gur. This fact, too, is in harmony with the low level of the lacquered vase fragments.

The excavation of the Temple Area is incontestably proving that there was a time far beyond the bounds of written history, when at least some of the useful arts were more skillfully applied than they were during those early ages of the historic period, to whose productions in art we have gradually accustomed ourselves to prefix the adjective "Archaic" in description of any rudeness of design, or roughness in shaping any object whatsoever, of whose age and history we are uncertain. I would not too severely criticize the common use of the word archaic. It is as necessary in archaeological parlance as is the word antiquity itself.

Its judicious use often covers a chapter of description.

Its wrong use is, however, misleading. It is not impossible that our modest work at Niffer is slowly, indeed imperceptably, defining the limits of its proper use more accurately. Long before the chronologist can even assign an approximate date for the foundations of this most ancient of cities, we shall have learned many a lesson in the comparative history of art, and in the

development of many useful arts, and it may be that one of the unexpected tasks devolving upon us will be to trace backward to a type and period of greater excellence and higher antiquity a gradually degenerating art. Such a lesson will, I believe, be learned from the pottery of Niffer. Our work at Niffer puts a new phase on the history and development of the arch. May not the history of pottery stand in a new and clearer light by reason of our labors also?

The pieces of an archaic vase of ordinary reddish pottery measuring 9½ inches in height found twenty-four feet below the pavement of Naram Sin, were saved and glued together in order to preserve a specimen of which hundreds have been found. Many attempts were made to obtain a sound specimen of his very ancient type, but without success. They appeared to be drinking cups and ladleing bowls. The pottery was slack burned and very brittle.

The stratum producing the case is literally filled with potsherds of small size and generally brick-red color. The lowest strata show a large proportion of black ashes and fine charcoal mingled with the earth. These strata to the very bottom of the accumulations contain potsherds in moderate quantities, but of great excellence in texture and form.

#### Inscribed Torso of Statue in Diorite.

The fragment of a statue was found in the stratum that has produced nearly all of the fragments of stone vases, which have hitherto been found within the noble Temple Enclosure. It was therefore found slightly above the level of the crude brick platform of Ur Gur, probably near to the point of its destruction by fanatical hands, doing the will of some vain-glorious despot, who unable to carry it away, destroyed it that another might not possess it; or maddened by a spirit of savage and jealous idolatry, delighted in acts of gross impiety, and sought cruel revenge for the sake of personal exaltation, or for the love of inflicting evil and suffering upon others, of finer mould, as a means of self-aggrandizement and glorification.

The body of the statue is broken nearly square off just at the joint of the elbows and below the clasped hands, which conceal behind them the ends of a long and flowing beard, well executed and scarcely injured in any way. Each wrist is encircled with a bracelet of precious stones, and about the neck is clasped a necklace of larger gems, strung on a skein of finely spun wool, glossy and bright in its wavy fibres. Such skeins are still worn by the more pretentious Arab sheikhs to crown the silken headwear and it is regarded by Arabs as a badge of distinction. Falling diagonally across the chest from the left shoulder, and apparently supporting a low hung garment, is a band of fine fabric 1 5/16 inches or 3.4 centimeters wide. Its lower edge is embroidered with fine and even stitches and a row of small stone beads. A bit of the garment is seen to pass under the right arm, and partly covers the right breast. Two folds of a lighter garment, or robe, probably a shirt, lie loosely over the left arm, fully exposing the left breast. The outer garment is sparingly embroidered, and hangs in graceful folds from its glittering fastenings. The body, arms, hands and nails are truthfully delineated; details of the body and its covering garments are well executed, and the surface is highly polished.

Just beneath the necklace, and between the shoulders on the back is an imperfect inscription. Only one line of the inscription seems to be wanting, and the first character of that line is clearly distinguishable.

#### Head of Statuette.

The head of the statuette discovered above the Ur Gur level, is of grayish white gypsum, and is broken off at the top of the neck. The head alone measures two and five eighths inches in height, including the remnant of neck left in front, it is two and seven eighths inches in extreme height. The head is well balanced. The face is pyriform. Except for a thick nose, the features are regular and pleasing. The corner of the eye is inlaid ivory, set in a slightly protruding rim of lead to mark the lids.

It seems probable that the custom of coloring the edges of the eyelid prevailed in the sculptor's time; otherwise the contrast in color between the dull lead and glistening ivory would have been too great. Both pupil and iris are wanting. The right eye is entirely missing. A curving incision made on a level and producing shadow in different lights, fairly represents the arching brow. It is possible, and indeed it seems highly probable, that some substance to imitate the hair of the brow was fixed in the bevelled slit or incision, which is admirably cut to retain such an imitation of the human brow.

The idea of such a material and literal imitation of nature is in perfect harmony with the treatment of the eye, and seems to have been a detail of the facial expression.

#### Human Skulls.

On the northwestern side of the ziggurat between the older construction of small bricks of Ur Gur's time and the later construction of large crude bricks, were found three human skulls. They were embedded in the mortar of clay mixed with straw, that filled a considerable space between these two constructions. The skulls were perhaps twelve feet below the top of the present ruin of the ziggurat as it appeared at that time, and were on the same level at nearly equal distances apart and were included within a space of about nine feet in length.

Whether the skulls represent the heads of sacrificed victims, or whether they were the heads of the toiling prisoners who had fallen victims to the angry passions of their taskmasters, there is nothing to indicate. Judging from our own laborers, who carry these large crude bricks a much shorter distance with great difficulty, it must have been a severe task to have brought these same bricks from the plain below, where they were made, a considerable distance from the top of the ziggurat, when the latter was built. The portage was probably done by prisoners of war, under the lash and it is not unlikely that many being ill, would fall from temporary exhaustion to the ground, and under such circumstances it is easy to fancy the hardened taskmasters as sometimes going too far in a fit of passion, and killing the helpless victims, they only thought to goad to



greater exertions; and occasionally, under sway of anger, to brutally murder one, who failed through weakness to respond to the lash.

One of the skulls still remains embedded in the mortar, and in due time its position may be shown in a photograph.

#### Unfinished Vase.

The unfinished stone (marble) vase of the same material, form and size as the vases of Alu Sharshid found in 1893 and published *unfinished*

The extreme height of the vase is 10 1/8 inches; its greater diameter across the top is 7 inches; across the bottom is 5 3/4 inches and its middle diameter is 5 1/8 inches.

A careful study and comparison of this uninscribed vase with the previously obtained inscribed fragments, will establish the identity of this uninscribed vase with the known work of Alu Sharshid. Out of the finally accepted conclusions are to be evolved arguments for the enlargement of our present chronological bounds and for the succession of Kingly reigns.

The vase was found about five feet below the level of the Naram Sin pavement, and was covered with black ashes and earth.

The position of the vase clearly proves its author to have preceded the reign of Sargon, whose son we know to have built the pavement. By how long an interval its author antedates the reign of the great Sargon, cannot be determined at the present time. It is certain that the two reigns were not far apart in point of time. It is possible that they were successive reigns. It seems also to be possible that they may have been separated by one or more generations of men. Unless documentary evidence is found, we must look for other indications to establish the sequence of reigns. It is my own opinion at the present moment that Sargon did not immediately succeed the author of the vase. But this opinion I would state with great caution lest any be misled by it. Before the Temple Area shall be fully explored, it is almost certain that other indications will be noticed bearing upon the sequence of these and other reigns of that epoch. In support of this assertion it should be remembered that our excavations below the great platform of Ur Gur include but a very small part of the Temple Area. Compared with the whole area the excavated portion is almost insignificant, and yet valuable results have been achieved, and we are still gathering material to elucidate the history and life of the millennium in which perhaps King Sargon was the principle figure. The inscribed fragments of vases hitherto found were all found above the platform of Ur Gur, and could not be identified with the stratum which concealed them for so many centuries. The same is for the greater part true of the Doorsockets and some of the brickstamps of Sargon above the platform of Ur Gur. Those inscribed objects were preserved from age to age for many centuries, and therefore were carried up from stratum to stratum as the mound grew in height by the slow accumulation of debris. The position in which those things were found was purely accidental, and they were not found in the Sargon level as it was at first

supposed. The true level of Sargon and of his predecessors, near and remote, is below the pavement of Naram Sin. Whatever is found in any of those lower strata is likely to have belonged to the stratum in which it was found, and may be safely used as evidence to establish the sequence of events and reigns, and to arrange in due order the scattered facts and remnants of human history in its earlier epochs.

As already expressed, I cannot doubt that Niffer is one of the oldest inhabited cities of Babylonia, and of the world, and though we have not hitherto found a very large number of ancient documents within the broad area of the Temple Enclosure, we are nevertheless, slowly and in small degrees gathering important facts upon which to begin a new volume in the history of the world--- a volume treating of an epoch little dreamed of by the last generation of scholars.

In our deepest excavations within the precinct of the Temple we have been at work around the altar, the very spot in all the Temple Area, least likely to have been the depository of records of any kind. I think we should not despair of obtaining records because the vicinity of the altar has not discovered them to us. Even here we have obtained results commensurate with the outlay of funds. The early edifice under the eastern corner of the ziggurat, the water-cocks beside it, the archaic arch, the unfinished vase of Alu Sharshid, are all from the vicinity of the very ancient altar, which antedate the reign of Sargon by centuries.

Many months of labor were expended in clearing the great court of the Temple of Ur Gur and his successors. Its chief results in transportable objects were the inscribed fragments of vases forwarded to Constantinople in the spring of 1894. This, of course led up to the greater work on the ziggurat. None of the labor on the court was wasted. The work there done is of great value, in the understanding of the work since done. It seemed to produce comparatively small results.

Instead of feeling discouraged with small results in the Temple precincts, I am almost hopeful of greater results in the earlier epochs of the unwritten history of the human race, for two or three millenniums before the time of Ur Gur. We must cease to apply the adjective "earliest" to the time of Sargon, or to any age or epoch within a thousand years of his advanced civilization.

#### Archaic Tablets.

Several archaic tablets were found no less than four feet below the level of the Naram Sin pavement, and antedate the reign of Sargon.

These tablets are rudely fashioned and appear to be inscribed with numbers only, represented by straight and curved lines in groups of two three, nine and ten.

In one instance a column of nine curved marks made by the thumb nail, is flanked on either side by a column of ten straight lines made by the use of some other instrument than the stylus.

One tablet has a single group of nine marks on one side of the tablet, and on the opposite side are two groups of two lines or marks each.

### Uninscribed Tablets.

In a layer of light gray ashes, some four inches in depth, on the northeastern side of the early edifice, and nearly on a level with the top of its walls, and underneath the pavement of Naram Sin, on which Ur Gur place the foundations of his temple, was found a fragment of an unbaked tablet. With it were also found several lumps of kneaded clay, and among them an imperfect tablet, prepared on one side only for an inscription, which owing to several flaws in its texture, it had never received. This unfinished tablet is more noticeable because of its general resemblance to a tablet discovered in an oven four feet below the level of the Naram Sin pavement, which tablet, not yet deciphered was inscribed on one side only.

Having been found beneath the Sargon level, it is certain that these fragments of clay and lime tablets long antedate the busy reign of Ur Gur to whose genius and skill as a mighty builder, the earliest monuments of Babylonia have, until recently, been assigned by general agreement.

Several fragments of lime mortar have also been found in the debris near the walls of the above-mentioned building, and at a depth of several feet below Ur Gur's platform. For what purpose it was used, is beyond our present knowledge, yet the presence of burned lime, made into mortar at such depth, proves that the art of producing lime was known in Babylonia before the time of Sargon, a surprising fact in the use of lime.

### Who Destroyed the Sacred Vessels?

If this conclusion finds acceptance, it then follows in logical order that the vases, whose fragments we have been gathering at infrequent intervals of time, were destroyed and their pieces scattered about by some one, who reigned between the time of Ur Gur and Ur Nineb, or by some conqueror who sacked the temple and carried away its archives between those reigns.

As none of the vase fragments were found immediately beneath the pavement, it is natural to suppose that the destruction was wrought by some one who lived at least one or two generations before the time of Ur Nineb; but on this point we have no trustworthy evidence to fix more closely the limits of the deplorable event.

### Ablutions.

Not far away from the archaic altar, and near the rude curb which circumscribed the sacred enclosure, but at a greater depth, was found a floor of terra cotta made in four sections, nearly four feet square, and ten and a quarter feet beneath the pavement of Naram Sin. The different sides of the flooring were of unequal dimensions. The longest or northwestern side toward the ziggurat measured 51 inches; its opposite or southeastern side was 46 inches; while its northeastern and southwestern sides were respectively 43½ and 44½ inches in measurement. It was bounded by a vertical rim two and one half inches high. The drainage from its sloping floor fell into a vertical drain of tiles 20 inches in diameter in the middle of its northwestern side. This was the place of ablutions which figure so conspicuously among the ceremonial observances of

Oriental faiths and are still practiced by the people of the land. The custom referred to, does not in any way affect nor effect the general cleanliness of the person. It is wholly a ceremonial and perfunctory rite often perfunctorily performed to make the body ceremonially clean for the effectual offering of prayer and rendering of acceptable worship. The discovery of this place for ablutions within the Temple Area proves that the present custom of preparing the body for the daily observance of religious worship as perpetuated by the people of the land, and many other Oriental peoples and religions, is of very great antiquity, and is probably as old in the unwritten history of the human race, as is the practice of idolatry itself.

In the immediate vicinity of the place for ablutions, but in different levels and belonging to widely different epochs of history, were found some fifteen large vases, probably for the storage of water, which were undoubtedly filled by women and servants in the employment of the temple service for the use of worshippers in their repeated ablutions. On the same level as the place for ablutions, was found a vase containing about two cauldrons, and two feet higher was a corrugated vase about eight feet below the pavement of Naram Sin, and about eight feet below the top of the altar (23 feet distant) which doubtless was a receptacle for water used in the temple service.

Several other vases found at different levels, varying from eight to twenty feet, below the venerable pavement of Naram Sin show that these large vases were used for several centuries before the time of the Sargon dynasty.

When the tide of pilgrimage was greatest, the use of the large vases to receive the water for ablutions was replaced by an aqueduct. Several ruined aqueducts still exist in the famous Sargon level of the court of the Temple.

The aqueduct was composed of an open water spout of terra cotta three and one half inches wide and two inches deep. It gently sloped toward the ziggurat. Its first appearance is immediately below the pavement of Naram Sin but belongs to the true Sargon level. It was doubtless introduced by the Sargon dynasty of Kings to replace the vases of earlier times which neither appear in the Sargon level nor ever afterwards reappear in the court of the temple. Whence the supply of water was obtained or how it was raised to the level of the aqueduct to the point of its ingress into the enclosure of the Temple we do not know. Perhaps we shall never know, yet it must be confessed that they have not been sufficiently traced to discover their true relations.

#### Pointed Arch.

This arch is found at low level at Mound X. It is not fully explored and its purpose is not yet apparent. Though there is no clue to its age, I cannot doubt that its antiquity is very great, perhaps antedating by two thousand years or more the beginning of the Christian era.

Whatever theory may be propounded to account for the origin, age or use of this arch it is not likely to have been the earliest specimen of its kind at Niffer. Indeed its very existence here at a low level and in a fully developed stage may safely be regarded as proof that the pointed arch

was known and used in Babylonia in much more ancient times than the date of this particular arch.

It is not unreasonable to suppose that the arch in both its pointed and rounded forms may have originated in this very region of the ancient world, and I shall follow with keen interest any possible clue that may cast any ray of light on so interesting a question.

Its foundations have not been sufficiently examined and only its external opening has been exposed to view. The portion exposed measures 1 foot 10 inches in height and 1 foot 4 inches in breadth at the bottom. I am not sure whether the measurements are made from the bottom of the arch, or at some point above its actual bottom, and I only give them because you like to know the dimensions of such objects.

The wall in which the arch is placed is built of the same crude bricks which compose the body of the ziggurat. In its centre the arch is  $23 \frac{5}{8}$  inches (60 centimeters) wide at the bottom. The arch passes through the wall of a building which has not been sufficiently examined to determine its nature. It may have been a house of the wealthier class of people or it may have been some other kind of a structure so far as we can now decide its use, yet from the appearance of a single room, which has been examined it is not unlike a house.

#### Terra Cotta Figure with Traces of Color.

One female head of terra cotta was found with clear traces of coloring, which on drying faded and scaled off from the terra cotta surface underneath it. The face was colored white, and a band of crimson, very fairly representing the width of a modern belle's ribbon, passed under the chin and upward in front of the ear holding in place a light covering for the head as a woman's bonnet is today held in place by ribbons fastened beneath the chin.

#### Inscribed Terra Cotta Vase.

An inscribed vase of yellowish brown terra cotta, two and fifteen sixteenths inches high and three and eleven sixteenths inches in greatest diameter was discovered in the loose earth that had gathered at the bottom of a mound where many valuable things have been found at Niffer  
*unfinished*

#### Lip Handled Bowl.

Among other forms of pottery was a large bowl, with an elevated and protruding lip, which was apparently intended for a handle, by which to grasp the vessel without the need of touching the hand to the contents of the same.

#### Bronze Smelting-Pot.

A fine bronze smelting-pot, quite sound except a small hole made in the bottom by the pick was found in a stratum of earth representing the beginning of our era or the century immediately preceding it. The capacity of the finely formed vessel is about one gallon. It has bronze flanges around the top, a pouring spout, ears for a bail and three legs. Its diameter overall is 8 1/4" width of flange 7/8" depth of pot inside 4", length of legs 1 3/4", thickness of handle ring 1/2", opening of spout 1".

In Baghdad a larger bronze vessel of the same form, weighing about eighty pounds and said to have been brought from Tello was offered for sale. Its capacity was perhaps five gallons.

#### Stele of Ur-en-lil.

The stele of Ur-en-lil was found in the debris near the bottom of a hill where many valuable things have hitherto been found. It measures 7 1/2 × 8 inches in length and breadth and is 1 inch in average thickness. Near its centre it is pierced by a circular hole 1 1/4 inches in diameter. On its flat face are traced by single and sized lines 6 human and 2 animal forms. There are three short inscriptions rudely inscribed in two tiers. The stele is an impure limestone of bluish gray color.

#### Glass Bottles.

Two glass bottles were found below a construction of crude brick measuring 11 1/4 × 11 1/4 × 5 inches; one bottle is square or four sided, with four pointed feet to support it. It is 6.5 centimeters in extreme height, including the feet, and 2.3 centimeters wide on each side.

The other bottle is square in form, but plain in design, and displays no special beauty.

If we can obtain any certain clue to the date of those crude bricks, we shall have fixed a date or epoch, beyond which the glass bottles must date their origin. No such clue has yet been found, and perhaps never will it be satisfactorily determined. Yet it will ever be our duty to search diligently for traces of every kind.

#### Inscribed Egg-Shell.

On the very crest of the Hill X. which has produced by far the greatest volume of cuneiform tablets, an egg-shell inscribed with ink in Hebrew characters was found in the room of a house. The floor of the room in which the fragment was found, is scarcely four and a half feet below the crest of the hill and the fragment appeared at a depth of only one half foot below the surface of earth which filled the room.

#### The Shatt-en-Nil.

By means of a trench 87 feet long with an average depth of 21 feet, we at length found the ancient bed and the northeastern or left bank of the Shatt-en-Nil, at the narrowest point of the main canal opposite to the hill marked IV on the "General map of Niffer (1889).

At the depth of twenty and one half feet below the surface of the ground in the middle of the ancient stream-bed, and at a point where the accumulations above it were least, the bed of the canal was found. At this point the eastern embankment of the canal was a sloping bank of reddish clay, and the most careful search revealed no trace of wall, or even a fallen brick or stone on the bank, or within the bed of the stream, to reveal the existence of a quay, from which it is natural to conclude that there was no well-built quay at this point of the canal.

In the debris accumulated above the bed of the stream, and 17 feet below the surface, were found three fragments of an ancient terra cotta fountain of unique design, with interesting figures in high relief. One fragment 7 by 10 inches, represents a priest clad in richly embroidered robes and standing on the backs or shoulders of two winged camels, or possibly winged horses. The curvature of the fragments show the fountain to have been more than two feet in diameter, and there must have issued from it at least 16 jets of water. These fragments are interesting from two points of view. First, proving the existence of fountains at Niffer. Second, as an example of somewhat archaic art in which the perspective is bad; the species of the animals not easily distinguished, while the decorations and robes of the headless priest reveal the artist in a work of true merit.

It is certain that the main channel of the Shatt-en-Nil did not pass between the Mounds I (*sic*) & V, but that a branch of the main canal flowed through the valley between these hills, while the main channel continued its direct course toward the southeast between the mounds V & X. On the very brink of the branch canal at the extremity of Mound V is a little hemispherical hillock which may be safely identified as the custom house of ancient Nippur while the space between the hillock and the entrance to the great temple from the southeast was an artificial harbor, where the ships lay at anchor to lade and unlade their mixed cargoes of merchandise, where too the pious groups of pilgrims to and from Bel's most sacred shrine embarked on their tardy journeys. From the point in the harbor where the tolls and customs appear to have been collected, began the principle business street which ended in the great caravanserai where the pilgrims coming overland found shelter with their donkeys, their mules, their horses, and their camels. On the street several shops for general merchandise were found, and one barber's shop in the centre of the market near the quay was examined. Several fine grinding stones were found in it. Its position in the best quarter of the market corresponds to the position of barber shops in the Orient today.

#### Mammouth Brick.

An inscribed, deep red, kilnburned brick, of excellent form and texture, measuring twenty inches square, and three inches in thickness, was found out of position, having been appropriated for a table or support of some kind. This brick appears to have been moulded by Naram Sin in the mould used for his crude bricks. The Louvre boasts the possession of a brick a trifle more

than seventeen and one half inches square. Ours is nearly two and one half inch greater in each dimension, and is the largest kiln-burned brick that has yet been discovered at Niffer.

### Ziaret.

About midway between the temple of Bel and the Shatt-en-Nil, and slightly to the southward of west from the former, has been excavated a building of doubtful origin, built of burned bricks and lime mortar, in the style of the ziarets, or holy tombs, which abound in many countries of the East and South, notably in Turkey, Persia, and India, and in the countries of northern Africa. This building measures thirty-two feet and three inches in length and breadth, and stands parallel to the great temple of Bel. Like the famous temple its orientation varies twelve degrees from a northwest and southeast line. In each side is an opening seven feet and ten inches wide.

The building was covered with a dome of bricks laid in lime mortar, and would appear to have been conspicuous for its symmetry and proportions. Its walls today stand seven feet and eight inches high, and are six feet and nine inches in thickness, being well built and sufficiently strong to resist the lateral thrust of the dome. The walls are built of soft yellow bricks measuring twelve and one half inches square with a thickness varying from a minimum of two and three quarters inches to a maximum of three inches. In color, texture and mould, the quality of these bricks appears to be identical with the soft porous bricks built into the facing of the great cruciform projections of the temple of Bel in its last great reconstruction by some unknown builder probably in late Babylonian times.

In the southeastern opening is an altar. The altar consists of three stages, each stage, except the highest, being composed of two layers of brick, each stage measuring six inches in height. The altar stands upon a raised platform 1 foot high, and its uppermost stage has evidently lost a course of bricks making the original height of the altar two feet, while across its top it measures three feet. The bricks composing the altar were laid in lime mortar, and its sides were smoothly plastered with mortar of the same kind.

Upon and around the altar to a considerable distance from it were wood ashes six inches in depth, a degree of accumulation that could not have been accounted for by an occasional fire.

Within the building and exactly in front of the altar is a raised block of crude bricks. The sides of this block were plastered in the same manner as the sides of the altar itself. It was distant from the altar about one foot. Possibly the officiating priest may have stood upon it while offering the sacrifices. There is a difference of one foot in the level of the brick pavement shown by the line X. Y. the side toward the altar being the higher.

There is no reason apparent to us why the pavement should have been made in different levels, unless it was possibly to elevate the altar and the priest above the lower part of the room.

Judging merely from the plan of the building, one might suppose it to have been an Arab tomb or ziaret.



At one stage in the progress of its excavation, the same suggestion came to us in the field, but as the work proceeded this hypothesis appeared no longer tenable, and we feel confident that this building is much older than the Mohammedan era, though by whom it was built we have no definite clue.

The bricks used in its construction were new bricks, at least they had not been previously used in other buildings, and as stated above, they are identical in dimensions, color and texture, with the soft yellow bricks used in the upper courses of the skin or facing wall, belonging to the last reconstruction of the temple in the cruciform style, which would at least justify the hypothesis that the newly discovered building belongs to the same era as the reconstruction of the temple itself. Besides, the orientation of the two buildings is exactly the same. The altar proves the building to have been older than the Mohammedan era. There are no inscriptions to determine its origin or purpose. We can only guess at the former and reason about the latter.

Possibly the situation of the altar in the opening towards the sun at its zenith may be significant of its use. Might it not have been an altar and temple, or more properly a shrine of the Fireworshippers? The domed building might naturally have been adopted from Persia, and that domes were used in ancient times is clearly shown by a bas-relief on the monuments at Nineveh. From whatsoever country this type of building originally came, it is certain that the Arab tomb and zialet are its lineal descendants and by no means a creation of the Saracens.

- A. is a little altar of massive limestone.
- B. is a sketch of the altar in the building.

The altar A. rudely made, and somewhat irregular in form, has a circular depression on its top, thus creating a raised rim around its edge.

A beautiful fashioned smelting-pot of bronze with a long slender spout and of about one gallon capacity was found at the entrance of the above building. It is quite sound except a small hole made in the bottom by the pick. In Baghdad a larger bronze vessel of the same form, weighing some 80 pounds, and said to have been pilfered from Tello, was offered me for purchase at the price of 5 L.T. (\$22.)

### Departure from Niffer.

On Monday the 17th. of Feb. 1895 (*sic, 1896*), being the third of Ramazan, 1314, of the Mohammedan era, excavations were regularly conducted until two o'clock in the afternoon. At that hour, the necessary preparations for our departure having been quietly completed, the entire force of workmen was suddenly withdrawn from the excavations and employed until nightfall in transporting coffins to the point of embarkation by boat to Hillah. Under a foreman the men were organized into gangs of twelve, to transport the coffins, from the castle to the place of embarkation nearly one mile distant. In all there were thirty coffins, large, heavy and fragile.

The distance was long. The burdens were heavy. The men were fasting. They had wrought since the early morning. Their courage was still good, and singing, and hurrying feet, they set

off with their uncanny freight. After the first two trips their sepulchral burdens seemed to grow heavier, their heads giddy, and their hearts faint, yet they continued their laborious toil until the sun had nearly sunk to the western horizon.

Each gang was provided with a special bier constructed for the purpose. Upon the rude bier the vacated coffin was firmly bound with ropes and the procession of several biers moved with the same hurrying tread that all such processions take in that part of the ancient world. One half hour before the setting of the sun, the fainting men ceased their labors for the day and ten minutes after the sun had disappeared below the horizon, weary and faint they had broke their fast.

Early Tuesday morning, the boats, three in number, arrived and were moored at the place of embarkation. At sunrise Tuesday morning, the work of transporting the coffins was resumed and finished about midday. The coffins were followed by other antiquities in small sealed cases and last of all the implements and household goods of the expedition were removed to the boats. The windows and door of the castle were properly sealed, and the premises and mounds formally committed to a guard consisting of three of the most influential and faithful of our employees among the Arabs themselves. At dark the antiquities were safely stowed in the boats together with the little company of Hillah people with all their household goods and belongings.

Even the most covetous of the Arabs will find it to his selfish interest to protect, rather than to destroy our house. Whether he anticipates honest gains, or plots and schemes for plunder and evil riches he will do nothing to induce us to abandon Niffer. He will rather do everything to invite us back, if only to do us the greater evil and acquire for himself the greater riches. We may, therefore, rest in the conviction, that the Arabs have every natural and selfish motive to wish us again among them. Friend and foe alike will welcome us back again; our friends to gain the reward of honest labor, our foes to seek the fruits of their covetous desires or to gratify some spirit of evil.

At nightfall all the antiquities, together with the expedition proper, were properly stowed in the boats. The members of the expedition, the Turkish commissioner, the soldiers and camp servants and fourteen sailors occupied the boats. On the bank beside the three boats was posted the Arab guard. Near them our Hillah workmen with their families and household goods, consisting of sixty three souls, bivouacked for the night.

Early Wednesday morning the entire force of our Arab workmen came, according to appointment, to tow the boats out into the main stream where they would float, for they were all aground in the shallow water at the borders of the marsh. The Hillah people embarked with their families and household goods. The boats were successfully towed into the deep stream and anchored beside a low mound, which was now an island in the great marsh. Here the boats were moored and the workmen paid three day's wages including that day, and about seventy day's wages were distributed in rewards to the most deserving of them. Among the entire throng there was not a dissatisfied man, nor one who withheld expressions of gratitude and good wishes, that we might have a propitious journey, a happy visit, and that we might soon return to them in good health and spirits for many year's residence among them. Whatever trouble the sheikhs, through

greed of gold, may give us, the people who have been employed by us, are our friends. They do much to set the current of public opinion in our favor. The very attempt to hold each employee to a stern and strict discharge of every duty, great and small, and to treat all with equal justice and fairness and to give sympathy to those in trouble, has won their respect and tenderness, and could their religious antipathy be put away from them, I am sure that they would give us their loyal friendship and affections. The feeling of these people toward us has acted as a great restraint against the faithless sheikhs, who with all their patriarchal power are nevertheless susceptible to the public opinion of the Arab multitudes, and the multitudes are kindly disposed toward us as shown in many ways.

After paying the workmen, the little fleet of three sailboats was headed up the stream towards the "Great river Euphrates". The wind was dead ahead and the boats were punted slowly along against wind and current for full three hours, through the marshes. About noon we issued from the wide-spreading marshes into a winding stream confined between low banks. From this point the boats were towed by man power to Hillah in five wearisome days against head winds and a stormy current. Without mishap of any kind the party arrived in Hillah on the afternoon of Sunday, the 23rd. of Feb. 1896, the ninth day of Ramazan. We were thankful to be away from the intrigues and evils that threatened us at Niffer. In Hillah we breathed more freely, and rested from the cares that had brought advancing age too rapidly through three long years of wearing toil and strange experience among the most faithless and treacherous of all the most degenerate tribes of Arabs of all the roving robber races of semi-civilized and savage men.

On Monday, the day after our arrival, all the boards and nails in the markets of Hillah were secured, and several men were employed in making boxes for the coffins and other antiquities. It being Ramazan, the workmen fasted by day and attended coffee drinking and smoking parties by night, but in due process of time fifty-six large boxes were made and filled with our jealously guarded treasures for transporting from Hillah to Busreh by sailboat. Thence they were to be transported by ocean steamship via the Persian Gulf and the Suez Canal to Constantinople.

Owing to extensive inundations from both the Tigris and the Euphrates, both of which noble streams overflowed their banks, the usual route from Hillah to Baghdad was closed to caravan traffic, and to the ordinary modes of travel, which caused us to make a detour of some 24 miles in order to reach Baghdad.

On Thursday we left the all glorious city of Baghdad going across Mesopotamia to the battle field of Cunaxa on the Euphrates. Crossing the river at that point we followed the Euphrates valley to Deir in fifteen days. Thence we turned across the Syrian desert via Palmyra to Damascus and Beirut, passing over the Lebanon range just north of Mt. Hermon by rail. Some ten days later our hearts were made to rejoice at the sight of the beautiful city of Constantinople.

App. A.

Dec. 28th.1895.

Walls under the Ziggurat.

By a series of tunnels under the ziggurat of Ur Gur I think the question of earlier structures may be satisfactorily determined without removing the enormous mass of the ziggurat itself, but the work must be judiciously done, carefully lowered (*sic, lowered*) at every step.

Those walls are now wet with the moisture of ages, and it is with the utmost difficulty that we can distinguish a wall of crude bricks from the compact clay soil on either side of it, until the wall is destroyed and dries (*sic*).

After a season or two of draining and drying this last can be taken up to better advantage, and the work can be done with greater assurance of success without blundering.

The work will, I think, require a network of tunnels and they must be so planned that the mighty mass above them will not fall, and yet all important clues must be followed to their end whithersoever they lead.

It is proposed not to attempt this task at the present time, but to leave it for a future term of exploration with a larger expedition, better able to give the minute attention, which the importance of the task demands.

In the court of the temple some walls have been noticed at very low depths, but those are not fully understood. They are very soft, and it is difficult to trace them, but we shall ultimately interpret their meaning when a larger area shall have been explored to the lowest depths.

App. B.

August 18th. 1894.

#### Plan and Elevation of the Northwest Façade of Ziggurat.

The northwestern side of the ziggurat is in height the most imposing of all the four sides, each of which differs from all the others in important features, as you will the more clearly see when our work on the temple shall have been completed.

Sheet No. 26 is a perspective sketch, from the northern corner, of the northwestern façade of the lower part of the ziggurat.

The northern corner is slightly restored where you cut it away. The western corner shows in the distance.

On the border of the Sheets 22 and 26 is a scale of divisions and a system of lettering to indicate the different epochs in the successive repairs of this oft rebuilt ziggurat.

The face of Ur Gur's ziggurat is six feet inside the facing wall, which shows in the sketch, and is therefore invisible.

Section A. is a casing wall, built by one of the Cassaeon Kings, probably Kadarman Bel, around three sides of Ur Gur's ziggurat, and, at one time, served as a kind of basement--- terrace to the great ziggurat itself.

Section B. represents five courses of brick apparently added by Meli Siha to raise the foundation for his paneled wall C.

Section D. shows three courses of crude or sun-dried bricks belonging to the great restoration, when the cruciform additions greatly enlarged the borders of the temple

Section E. shows a wall of the last restoration of the temple so far as we can trace it.

No evidence has yet been found to show by whom this wall was built, and we are therefore only able to guess the names of the last two rebuilders of the most celebrated temple of Bel.

Section F. what may have been the second stage of the ziggurat when the temple was last repaired on its cruciform foundations. At this time the ground level was probably raised to section D. so that the wall E. was the foundation of the temple as the rebuilt.

We have been unable to trace Ur Nineb's hand in the body of the ziggurat, though his bricks have been found in pavements vitally related to the ziggurat and its immediate surroundings.

Sheet 23 showing the southwestern half of the ground plan and elevation of the northwest façade, has a recess in which are three pedestal constructions, to whose use there is no clue remaining, though imagination might easily persuade one that they were the pedestals of as many idols or statues, which may have stood guard over the weary pilgrims, as imagination pictures them sleeping on the enclosed plain toward the northwest; for I cannot doubt but that this great open space was then enclosed with walls or lined with shops, and offered the necessary protection to the pilgrims, and their caravans of camels, horses and asses.

App. C.

Sept. 1st. 1894.

#### Stages and Terraces of the Ziggurat.

At the distance of thirteen and one half feet from the face or front of the conduit there has been found the sloping face of the second stage.

The terrace on the southwestern side of the ziggurat is therefore thirteen and one half feet wide, and from this terrace rises the second stage with apparently the same batter or slope as the face of the stage below it, which is one in four, or three inches in one foot.

The batter of the second stage will not be definitely reported until a greater height of its face can be exposed, and it can be more accurately determined than in a low tunnel.

The surfaces of the ziggurat, to preserve them from rapid decay, were entirely covered with a very tenacious plaster of clay mixed with cut straw.

In places this plaster is still perfect, and in places, too, there is distinctly visible several coatings, plainly showing, that, from time to time, and from age to age, the faces of the ziggurat were re-plastered, and as long as the surfaces were protected with plaster, the constructions, though built of friable material, suffered no harm from rain or wind, and so long as the building was kept well plastered it was practically as durable as burned bricks, which, owing to the

scarcity of fuel to bake them, must always have been an expensive building material in lower Babylonia.

In line with the conduit, built into the first stage, the face of the second stage in its centre was considerably ruined by flowing water, probably at the end of the period preceeding the great cruciform restauration and enlargement of the ziggurat.

Southeast of the centre, the entire face of the second stage is worn away. It is, however, still perfect northwest of its centre, and shows an offset in line with the conduit below it, which suggests a water course of some sort; but less imposing and substantial by far than the great conduit below it.

Having at length found the second stage, of the older ziggurat, we shall now make a careful and diligent search for the second terrace and then for a possible third stage.

App. D.

Feb. 9th. 1895.

#### Construction of the Ziggurat.

This picture gives a front view of the ziggurat. It was taken from an opening in the great enclosing wall of the Temple Area, in front of, or southeast of the ziggurat itself.

In the middle of the picture is the causeway, which may have been an approach to the higher stages of the ziggurat. It is composed of two parallel walls built of the burned bricks of Ur Gur, many of which are stamped with the well known eight line inscription. The space between the two walls is filled with a regularly laid and solid mass of crude bricks, whose average dimensions are 9 by 6 by 3, inches. These bricks are of the same mould, and in color and texture are identical with the crude bricks composing the greater part of the huge mass of the ziggurat built by the mighty builder Ur Gur.

The stepped appearance of the two walls of the causeway is the result of cutting down the walls to make a level foundation for the façade or crust of the latest cruciform construction. As this construction was built up solid, the outer part or crust cannot be spoken of as a wall. It was under this crust, corresponding to the wall of a building, that the parallel walls of the causeway were cut down to provide against the unequal settling of the ponderous mass above it.

The tunnel under the entire length of the causeway proves the structure, as it now stands, to be homogeneous, and therefore is the work of a single builder, and moreover was built by the great builder of the ziggurat, which is now freshly exposed to view.

The original faces of the second and third stages of the ziggurat, are respectively shown at d,d, and e,e. b, and c, are central projections of the same stage.

No such projections are to be found on any other side of the ziggurat. The design of these projections over the causeway is not evident, yet that the officiating priest may at times have harangued the people in the great court below him from that height, or have performed other

functions of his office there, while, for aught we know to the contrary, there may have stood at the far end of the causeway a sacred shrine or altar.

I think we must learn more of the methods of the worship of early Babylonian times before the design of these projections can be intelligently discussed, and before the purpose of the causeway can be fully understood. Whatever the purpose of this earliest causeway may have been, it seems to have suggested to later generations the form that was adopted in the cruciform construction. At a higher level, and belonging to a later period than the causeway, were built from the middle of its four sides of the ziggurat at right angles to its faces, four arms twenty feet wide and probably upwards of sixty feet in length.

These arms were built of crude bricks measuring  $14 \times 14 \times 6$  inches.

The cruciform construction of later times was a broadening of these arms on essentially the same foundations, thus making an immense elevated platform. It may readily be supposed that a smaller ziggurat of several stages rose from the centre of this great cruciform structure as a platform, and at the end of each of these lower arms stood a shrine or an altar. This accounts for the large and high cone of crude bricks still rising far above the top of the cruciform construction, and account for the arms themselves.

Whatever value one may assign to these suggestions it is clear that the earlier causeway suggested the intermediate projections on the four sides of the ziggurat, and an enlargement of these produced the great cruciform construction, with which you are familiar, and which is now largely removed as these accompanying photographs, and other photographs to follow them, will clearly prove to you. But I must continue the explanation of the photographs in due order.

#### App. E.

##### Different Constructions of the Ziggurat.

Ur Gur's ziggurat was built of crude bricks  $9 \times 6 \times 3$  inches and faced on the southeast side with burned bricks.

Some successor of Ur Gur's made an addition to the top, at least of Ur Gur's structure adopting the standard size of Ur Gur's bricks  $9 \times 6 \times 3$  inches. These bricks are easily distinguished by their yellowish color from the old gray bricks of Ur Gur whose mould was adopted for them. In due time the ziggurat was rebuilt with crude bricks measuring about  $11\frac{1}{2} \times 11\frac{1}{2} \times 5\frac{1}{2}$  inches, and at an unknown later period by crude bricks measuring  $14 \times 14 \times 7$  inches. So far as I have been able to trace the various constructions, this was the fourth construction of crude bricks of the ziggurat. After this the great cruciform structure was super-imposed upon the ruined building on a larger scale. This is the fifth and last traceable rebuilding of the crude brick ziggurat. It is built of  $13 \times 13 \times 9$  inch crude bricks.

At the time of its reconstruction the bases of the ziggurat were broadened on every side, and it has been referred to as "The great reconstruction of the temple in the cruciform style." This

ziggurat is supposed to have belonged to the second Babylonian Empire; but no clue to its builder's name has anywhere been found.

It is therefore difficult to designate it otherwise than has been done. It was between the bricks of this later ziggurat that the fragment of lapis lazuli disk bearing an inscription of Nazi-Maruttash was found.

Dec. 21st. 1895.

#### Pavement to Protect Foundations of Ziggurat.

A section of brick pavement built against the base of the brick faced ziggurat of Ur Gur is seen. On this pavement, which gently slopes away from the ziggurat, was covered with a thick coating of water proof bitumen to protect the foundations of the ziggurat, as related in certain letters written in the early months of the year 1893.

June 30 1894.

As you will readily understand from the headings, Sheets No. 1 and No. 2 show the ground plan and elevation of the northeastern façade of the ziggurat.

The niche C. is a closed door.

D. is a little gate.

E. is a passage--- possibly a drain.

At the point indicated in the ground plan a tunnel has been driven under the facing wall of the ziggurat into the small crude brick (libben) composing the core of the ziggurat. This facing wall, which on this side of the ziggurat, is not a wall of Ur Gur is only three feet in thickness, and contains several bricks inscribed on the outer edge.

After passing the outer or facing wall, the tunnel cut through three feet (in thickness) of crude bricks, and came to a faced wall of Ur Gur some twelve feet wide and eight courses high.

The meaning of these walls we do not yet know. The matter needs further examination.

F. represents a section of a well which proved to have been an ancient well for water and was cut through a wall--- which we are confident was built by Meli Siha, whose inscription is stamped on the edge of several bricks in the face of the wall. Who built the well or why it was placed at that point are beyond our present knowledge.

Sheet No. 3 makes a cross section of the northeastern wall through the middle of the tunnel mentioned above, and shows the relation of the Ur Gur wall to the facing wall. It is noteworthy



that the two lowest courses of the Ur Gur wall continue under the crude brick, and are laid on the same level and continuous with the two lowest courses of the facing wall.

The section also shows the sloping pavement of bitumen, evidently made to protect the foundations of the wall from falling rain. The bitumen pavement was narrower on this side than on the southeastern side of the ziggurat; but unlike that, this pavement emptied its water into a well-made gutter of bricks and bitumen. The pavement and wall beyond the gutter have only been explored by a tunnel, in which a small fragment of a stone vase showing the eight rayed star which precedes the name of a King or Deity was found.

In my judgement a larger portion of this pavement should be cleared away; for it is near to the eastern corner of the ziggurat, within the walls of which there may have been a secondary ascent to the second stage of the ziggurat.

Sheet 4 shows the plan, section and elevation of the niche C. which originally sustained some relation to the structure around the well that is not yet made evident.

Sheet No. 5 shows in perspective the walls shown in the elevation on Sheets Nos. 1 and 2, and it also shows the bitumen pavement and open gutter, and indicates the curves in the buttresses of the Meli-Siha wall, and the longitudinal curvature of the lowest and oldest wall in the façade.

Sheets Nos. 6 and 7 are sketches of the great excavation showing the southeastern side of the ziggurat, and projecting from its centre at right angles to it the parallel walls of Ur Gur.

As hitherto stated, the space between these parallel walls was filled with crude bricks or libben, and a tunnel underneath shows its homogenous structure. The highest part of this structure is still complete, excepting a parapet or balustrade on each side, which has disappeared. This was unquestionably the chief approach to the lowest stage of the ziggurat, and may possibly have extended from the face of the ziggurat to the great wall of the temple enclosure; for the fragment of Ur Gur's wall found by Dr. Peters in the great trench near to the great wall of the Temple Enclosure, was a ruined section of the northeastern one of these two parallel walls. They are, properly speaking, the facing walls of an elevated passage way, and as they rise, slope toward each other.

It is worthy of notice in this connection that the door socket of Ur Gur, discovered September 20th., was found in a mass of fallen bricks, both crude and burned, near the juncture of the above-mentioned passage way, and the body of the ziggurat.

July 7. 1894

Sheet No. 10 shows the combined plan of the rooms previously excavated to the southeast of the ziggurat, and the rooms contiguous to them. These rooms have proven more than usually interesting in architectural details, and the more interesting because some of them represent phases of domestic life and architecture among the Babylonians of the early days of the later (Babylonian) Empire.

Sheet No. 11 gives a sketch in perspective of the street shown in the accompanying plan. It looks toward the Southwest, and shows its continuation along the face of the southeastern buttress of the ziggurat, and under the steps on the opposite side of the great trench.

In the middle of the unpaved street is a well-made gutter of burned bricks.

The masonry of combined crude and burned bricks in the left-hand middle distance shows a stairway descending from the filled up street (of what seems to be a well defined period in the occupancy of these houses, and the continued use of the street) to the lower room of a house, that was continually occupied and kept free from accumulating earth long after the street and the neighboring houses had become filled to a higher level with earth and debris; even after the doors of other houses had been raised to enter the street over a low threshold, sometimes of burned, often of crude bricks.

As they now stand free from the accumulated debris that has covered and preserved them for many centuries, the walls of these houses clearly show three distinct periods in their occupancy.

After the first occupation, during which time the street and many of the houses were filling with earth, the walls of crude (libben) bricks were at least twice raised to a higher altitude and twice were the doors carried upward to a corresponding height. The house in the left of the accompanying sketch (Sheet No. 11) shows three doors, marking the three clearly defined periods in the history of these houses.

The lower door with a segmental arch belongs to the first period; the second door was closed by a mass of crude brick, which projected beyond the face of the walls, and the opening above this projection is the ruined door of the third and last discernable period.

Sheet No. 11 also shows toward the right hand sketches of two fire-places, found respectively in rooms No. *blank* and No. 117.

Sheet No. 12 gives a cross section and ground plan of the street at the point of the centre door. It also shows cross section and elevation of the doors of the first and second periods belonging to the above house, and shown in the sketch, and in the section, and plan of the street given on the same sheet.

Sheet No. 13 is a sketch of the domestic pottery taken from this series of rooms, chiefly from rooms No. 117 and No. 121. The large vase in the centre of the group was perforated, probably to allow the escape of water. It was sunk below the floor of earth in the northern corner of the room numbered 121 on the accompanying plan (Sheet No. 10).

Around the jar's mouth was a bit of bitumen cement, apparently designed to convey water into the jar, which would seem to have served as a drain, although a more unsanitary method of plumbing could scarcely be devised. Drainage was generally effected by a sluice under the threshold of the door into the street or by a small drain through the wall of the house also into the street, the sloping floors facilitating the flow of water toward the drain.

Sheet No. 14 shows the excavations on the northwestern end of Hill VII, where the results have so far been meagre though by no means fruitless.

Some fifteen feet southeast of the eastern corner of the ziggurat, and about twenty five feet beneath the surface was found one of Meli Siha's inscribed bricks with a glazed edge. It was found in the same stratum, and at about the same distance from the walls of the ziggurat, as the fragments of green glazed bricks heretofore mentioned. Like them, this brick was also embedded in a fallen mass of crude and burned bricks firmly cemented together by an intermixture of clay and soil. This mass of debris extends underneath rooms 118 and 121, and will, in due time, be further examined for any possible clue pointing to its use in some overthrown structure.

In the corresponding strata, and at the same distance from the ziggurat on its northwestern side, is a confused mass of the same crude and burned bricks, of equal volume, and in all respects similar to the mass described above. Here, too, have been found among many burned bricks of one mould, several stamped bricks of Meli Siha, and a fragment of green glazed brick.

After several months of study and comparison of bricks, I do not hesitate to identify the uninscribed bricks in these fallen masses, both to the southeast and to the northwest of the ziggurat, as the bricks of Meli Siha since they are of the same mould, texture, color and hardness, as are the stamped bricks of the same King; nor can I longer resist the conclusion, which was at first only a theory, that the temple as it was rebuilt upon the ancient foundations, by the versatile and energetic Meli Siha was stripped for its facing of brick by some vain glorious destroyer of the later Babylonian Empire, who in rebuilding, considerably enlarged its sacred precincts.

I am confident that when, in the fulness of time, our work within, upon and around the ziggurat, shall have been completed, the time and labor spent in deciphering the problems and details of this oft rebuilt and at least once overthrown temple, will be productive of rich results.

I Berlin W. Kleistr. 8<sup>I</sup>

	<u>36</u>	617 <i>ill</i>
1 =	no 36 (191 tabl. fr.)	
2 =	no 131 (42 frg. tabl)	
3 =	no 30 (104 tabl. fragm)	
4 =	no 34 (115 fr tabl)	
5 =	no 33 (84 tab fr)	
6 =	no 35 (81 tabl fr)	
7 =	no 31 (87 tabl fr)	
8 =	no 55 (66 fr. tabl., 1 jar <i>ill ill.</i> )	
9 =	no 55	
10 =	no 72	M.....
11 =	no 76 (227)	V.....
12 =	no 74 (128)	Dab.....
13 =	<i>blank</i>	McCalla
		Ha.....tz

Retenues tablettes

1 = 36 — = c. 50 } ungebrannt  
 3 = 30 — = c. 25 } selbige Sorte  
           c 2500  
 4 = ———

13 = no 53 (40 fr + 106 tabl + 2 ill)  
 14 = no 77 (62 fr + 172 sound)  
 15 = no 79 (223 brot + 84 fr tabl)

Zu haben

7-8 (Deckel)  
 9.+10 (ill schon voll, aber fast ausschliesslich  
           Cassitensehund  
 11+12 = sicher  
 14 = sicher viele gute Cassiten + Könige von Ur  
 13 = no 53 (146) sicher (etliche grosse)  
 15 = no 79 (307) viele Cassiten schlecht  
           präserviert aber zu nehmen ill ill  
 16 = no 29 sicher nehmen (grosse Tafel  
 ill { 17 = no 57 (etliche gute ill)  
       18 = 78 (47 tabl + 287 frg) nehmen

19 = 75 (84 frgt tablets) }  
 20 = 54 } alle 3 nehmen  
 21 = 29 (no. 32) }  
 40 = 25 = 40 (123 fr)  
 44  
 41

26-28 (nicht sehr wichtig)  
 aber nehmen

Nicht

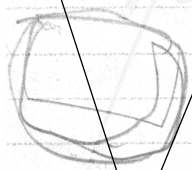
9-10 = 55 + 72  
 19 = 19+20 (ein Teil) sehr gute  
           2 Dynastie Ur  
           19: schlechte  
 20 sicher nehmen  
 20+21 sicher (Teile von 20 darin)  
 19 \* }  
 20+21 } ill  
           Alle nehmen  
 22 = 56 }  
 22+23+24+25 (hat ill 22-25)

26 (kein Haynes N <sup>o</sup> da)	39 = Haynes no. 68 (107 frg tbls)
27 = no 42 (104 fr)	40 = " no 70 (128 frg)
28 = no 41	41 = " " 71 (105 fr)
29 = 44	42 = " " 116 (151 fr)
30 = no 38 (109)	43 = " " 114 (140 fr)
31 = Haynes no 12 (24 sound + 5 frg)	44 = " " 115 (224 fr.)
32 = " " 64 (161 fragmt)	45 = " no ? (c. 150 frag)
33 = " " 98 (Terracotten)	46 = " no 92 ( <i>blank</i> pilfered & recaptured)
34 = " " 69 (135 frgm tablets)	47 = " no 94 179 frmt tablets
35 = " " 96 ( <i>ill</i> of bowls, bronzes gold, seal cylid)	48 = " " 90 (126 fr)
36 = " " 66 (130 frgmt. Tablets)	49 = " " 91 (110 fr + 6 <i>ill</i> )
37 = " " 65 (142 frg)	50 = " " 95 (120 frag) <u>temple hill</u>
38 = " " 67 (111 frgt)	51 = " " 62 (133 fr)
	52 = " " 84 (198 fr v Templ)
	53 = " " 93 (119 fr = 2 parcels = <div style="margin-left: 150px;"> <span style="font-size: 2em;">}</span> 19 cases  <span style="font-size: 2em;">}</span> = 3 <i>ill</i> </div>
	54 = " "
	55 = " "
	56 = " "
	57 = " "
	58 = " " 122 (73 frgt)
	59 = " " 48 (97 fr)
	60 = " " 57 (192 fr. tablets)



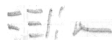
p. 8-9

	Kisten wie heute numeriert u. was sie enthalten	
<u>sicher nehmen</u>		no 2
<u>31 + 32</u>	= alles was täglich war v Tempel ist in dieser Kiste, einige grössere Fragmente andere Kassitenschund	39+40 (ja, etliche Frgmts von Briefen)
<u>muss haben</u>		41+42 ( <u>manche</u> Briefe darunter) no <u>2</u> od <u>1</u> .
33 + 35	Terracotten (nehmen) Perl..., Bronze, Eisen, etc.	43+44 = absoluter Kassitenschund <u>nichts, gar nichts</u>
34 + 36 (Tablette)	Kassitenschund mit Ausnahme einiger kleiner Fragmente von Briefen (2 <sup>te</sup> Sorte)	45 nichts grosser Cassitenschund etliche Frgmts v Briefen (III)
37 + 38	Kassitenschund, etliche Fragmente v Briefen	46+47 <u>sicher</u> (v. Tempel alte Frgmts von no 47 kleine Frgmt v. Tempel
	<u>muss haben</u> enthält Frgmt <i>ill.</i> kleiner Thoncyliner u. etliche <u>beste</u> Frgmts v Briefen	

p. 10-11

48 + 49(½)	wichtig sicher nehmen, etliche grosse ganze & gute fragmte, besonders eine grosse zerbrochene Tafel	51+52 enthält eine (ziemlich ganze) alte Tafel & hunderte kleine Fragmente urältester Zeit in ungebranntem Ton
50 (sehr gut)	viele alte v Tempel + 2 zerbrochene Stempel Sargons auf alle Fälle diese nehmen	 nehmen
		53+54 Case tablets & viele alte Tafeln sehr wichtig

- 12 61 = no 46 (91 frgntary tablets)
- 62 = no ?
- 63 = no 49 (60 frg tablets)
- 64 = no 47 (100 fr tablets)
- ~~65 = no~~
- ~~66 = no.~~
- ~~123 +~~
- ~~125~~
- ~~126 + 127 + 128~~ each 3 skulls frmts
- 65 = no. 107 (Pottery in frgmts; viele Vasen  
2 *ill* wert
- 66 = no. 105 (16 pieces of *ill* Pottery + 1 Pckt Glas  
broken pottery
- 67 = no. 104 (17 Water Vents fr Temple of Bêl
- 68 = no 106 (*blank*
- 69 = no 101 (Bronze + faience + Glass bottles
- 70 = no 110 (
- 71 = no (
- 72 = no (
- 73 = no (
- 74 = no (
- 75 = no (
- 76 = no (
- 77 = no (
- 78 = no (

- 13 Kiste 44   -gal-a
- ill* III Pur-ra-pur-i[a ...)
- Frgmt 
- Pur-ra-bu-ri-ia-as



---

no 11 } Haynes property  
= 112 }

" 6 models of boats

" 21 enthält 44 Gesunde Tafeln

" 26 " (16 gesunde + 4 fr)

.." 45 "

*rest blank*

14 55 = no 119 (Pottery + Phalli) double size  
einige v der oberen Schicht herausgenommen

56 = no 120 (16 vases + bowls, 1 frg of inscribed *ill* Brick  
viell. wichtig *ill*

57 = no 50, (141 frg. tablets)  
beste Sorte, nehmen.  
einige fragmentarische Cylinder

58 + 59 nehmen alte Tempelfragmente + Liste ält. Zeit

15 60 + 61 (II Cassiten + etliche alte gute Tempel- + **Listensorte**, bessere Frgmte

61 (1 layer)+62 bessere II

63 + 64 einige grosse Frgmte II

---

65 gewöhnliche Pottery in Frgmt, meistens *ill*, aber nicht ganz = 107

66 = 105, 16 pieces of broken pottery  
sehr schlecht

67 = 17 Water vents, die 3 oberen besten *herausgenommen*  
viell untere noch ein bis 2 nehmen

16 68 = 106 aller....ste Pottery  
nicht nehmen

69 = 101-400 Spindeln, *ill*, schöne *ill* Vase  
noch nicht entschieden

70 = 14 Packete Glass-Frgnte (nehmen

71 = 20 fine Glass bottles  
sicher nehmen, etliche gute

72 = Masse v Glass Splittern

73 = 111 (Frgnts of Glass in 14 parcels Pottery *ill* nehmen, etliche emaillierte darin  
+ 1 kleines Fragmt mit *ill*.)

74 = 105 (25 frgts of Water Vents, Temple des Bêl

alle diese nehmen)

17 75 = no 111 Glassschund

76 = wichtige Kiste mit Resten von Leinwand v Grab  
alte Bronze + alte Tafel *ill*.  
wichtige Relieffgnte

77 = 58 (68 frty, }  
66 sound } tablets  
sehr wichtige Kiste Tafeln, Briefe, Kassiten, 2<sup>te</sup> Dyn v Ur

78 = 480 whirls tripods etc.  
do (= no 100)

79 = ohne N<sup>o</sup> Fragm de *ill*

80 = 59 (96 fr + 65 sound tablets

77 + 80 =  
alte + viele gute Cassiten

18 80 = 116 (151 frgt  
sehr schlecht

81 = Hay. no. 130  
nehmen

82 = Hay. no. hat keine *ill*., 31 inch langer Knochen from depth of 20 feet, Jan. 7, 1895


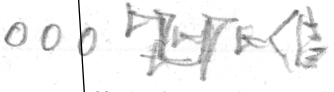
83 = Hay. no 97, 1 large bronze vase  
2 bronze bowls  
nehmen 42 several stray frgnts  
1 Stück mit Herkelchen *gebr. ill*.

84 = Hay. no. 123  
3 Skulls; 1 sehr guter  
drin gelassen alles

19 85 = Hay. no. 128 (Bones + Beads)  
sehr schlecht, 2 Ringe + Anzahl schlechte beeds herausgenommen

86 = Hay. no. 126, 3 skulls  
sehr schlecht in Stücken  
très mauvaises

87 = Hay. no. 127, 3 skulls  
schlecht erhalten

- 88 = Hay. no. 124, 3 skulls  
schlecht
- 89 = Hay. no. 125 2 skulls  
sehr schlecht
- 20 90 = Hay. no *blank*  
sans valeur
- 91 = Hay. no. 6  
ziemlich gute pottery  
nehmen 1 kleines *ill* Boot v Thon, *ill.*  
die kleine Box mit Jewelry + ein frgmt einer Vase  
+ 1 kleines bot
- 92 = Hay. no 5, large vase  
viell ? ordinäre aber gut erhaltene pottery
- 93 = Hay. no 7 ganz gewöhnliche Pottery  
nur  herausgenommen  
viel aber wertlos
- 94 = Hay. no. 4 pottery ordinär  
nehmen (ordinär aber *ill.* *gar* besser)
- 21 95 = Hay. no. 3  
*blank*
- 96 = Hay. no. 23, 140 frgm de tablet  
Kiste sehr gute Frgmente  
ein ganz grosses, wichtiges oben
- 97 = Hay. no. 25 (124 frg tablet  
*blank*
- 98 = Hay. no 1  
ein clay stamp of Sargon herausgenommen  
sicher nehmen (gut erhalten)
- 99 = Hay. no. 10, ein Mine ohne Inschrift von unter Narâm-Sin's Plattform hineingelegt  
sicher nehmen
- 22 1) 1 enthält grosse Ente, fragmentarisch  
+ 4 Frgnte einer Marmorplatte mit Inschrift am Rande  
 (*OSP 2, no. 39*)
- 2) 3 grosse Mortar, 1 *ill.* (schwarz)  
les deux en pierre bleu  
= no 134
- 3) = no 133, Letter of 30 November 1895
-

100 = Hay. no. 9 Frgmt v Sarcophgen mit weiblichen Figuren

101 = Hay. no. 101 eine ganze Reihe v Siegelcylindern  
sicher nehmen drin gelassen

- 23 102 = Hay no 22 (200 frg tablets)  
grössere Frgmt der Cassiten  
eins double + 1 Frg des Boundary Stone + 16 fragm des VIII
- 103 = Hay. no. 61 (93 frg tablets)
- 104 = Hay. no. 28 (118 frgm)  
**eine** Fragmte der Cassiten
- 105 = Hay no 27 (207 fr.)  
eine Kiste schlechte Frgmt
- 106 = Hay no 13 (173 fr)
- 24 107 = Hay. no. 26 (4 packges of reunited tablets)  
10 frgnty tablets  
11 sound tablets } sicher nehmen  
2 sound tablets } 2 Packte *ill.* + grosse Tafeln hinein
- 108 = Hay no 83 (158 fragnts)
- 109 = Hay. no 80  
**blank** Sound tablets } sehr wichtig  
80 frg tablets } sicher nehmen
- 110 = Hay. no 87 viele Neubabylonische gute
- 111 = Hay no 12 (6 small sound tablets + 104 frgnts)  
einige ganze alle Darius, braunes papier  
v Darius
- 112 = Hay no 15 (250 fr. tablets)
- 25 113 = Hay. no. 85 (106 frgts)  
weisses Papier (oben) Kassitenschund  
111+112+113 eine Kiste nehmen
- 114 = Hay. no 82 (169 frgnts)  
+ Kassiten + 2 Dynastie v Ur
- 115 = Hay. no. 17 (208 fr)  
+ nichts gutes } sicher nehmen  
etliche recht gute von no 116½ u 1 Cadaster
- 116 = Hay no 84 (64 sound, 120 fr)  
Kassiten sehr gute + 2 Dyn v Ur
- 117 = Hay no 14 (209 fr) } 116½-118 Schund
- 118 = Hay. no. 20 (240 fr) } unten einige wenige ganze  
v II Ur (kaum nehmen)

- 26 119 = Hay no 86 (128 frg)  
 enthält einige recht nette Tafeln  
 II der Cassiten + anderer Dyn
- 120 = Hay no 81 (133 fr)  
 (Schund)  
 119+120
- 121 = Hay. no 18 (200 fr. tablets)  
 einige grosse da... sicher nehmen
- 122 = Hay no 45 (56 inscrib charms + frag  
 1 of Terra Cotta Dog } nehmen  
 1 Sect of ill. cone }  
 10 Fragn tablets, reunited + wrapped
- 123 = Hay. no 63 (63 fr tablets) } Cassiten  
 124 = Hay. no. 16 (177 Frags) }
- 27 125 = Hay no 19 (138 frgnt blts } sicher nehmen  
 126 = Hay no. 21 (44 sound, 55 fr) } einige sehr gute Cassiten + andere  
 127 = Hay no. ?  
 grosse Frngte v Cassiten  
 (II)

*rest of page blank*

- 28 128 = Hay no. *blank*  
 129 = Hay no. *blank*  
 130 = Hay. no *blank*  
 131 = Hay. no. *blank*  
 132 = Hay. no *blank*  
 133 = Hay. no. *blank*
- 29 134 = Hay. no. *blank*  
 135 = Hay no *blank*  
 136 = Hay. no. *blank*  
 137 = Hay. no. *blank*  
 138 = Hay. no *blank*  
 139 = Hay no *blank*
- 30 140 = Hay no *blank*  
 141 = Hay no *blank*

142 = Hay. no *blank*

143 = Hay no *blank*

144 = Hay no *blank*

145 = Hay no *blank*

*p. 31 and 32 blank*

33 no 11. 12 (6 smll sound + 104 fr tablets)

no 13 = 123 fr tablets

no 10 = *blank*

no 82 = 169 fr tablets

no 86 = 126 " "

" 81 = 133 " "

" 84 = 64 sound + 120 fr tablets

" 80 *blank*

" (1)18 = 200 fr tablets

" 19 = 138 fr tats

" 14 = 209 " "

" 63 = *blank*

" 45 = *blank*

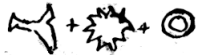
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Haynes' No.				
1	= no. 36	} (Ismail) ich glaube, in eine Kiste zurückgepackt(1+2)	191 fr.	
2	= no. 131		42 "	
3	= no. 30	} in eine zurückgepackt (3+4)	104 "	
4	= no. 34		115 "	
5	= no. 33	} ich glaube in eine zurückgepackt (5+6)	84 "	617 p
6	= no. 35		81 "	
7	= no. 31	} in eine gepackt (1 jar cover)	87 "	
8	= no. 55		66 "	
9	= no. x5	} Abud el G (9+10)	c. 178 "	+
10	= no. 72		142 "	
11	= no. 76	} (11+12)	s. 22+105 fr	829 piec.
12	= no. 74		128 fr.	
13	= no. 53		148 (106 s + 42 f)	
14	= no. 77		234 (172 s + 62 f)	
15	= no. 79		310 (223 brok + 87 f)	+
16	= no. 29 (Abud el G)		99 (58 s + 41 f)	
17	= no. 57	} (Ismail) eine Kiste	143	1267 piec.
18	= no. 78		334 (47 s + 287 f)	
19	= no. 75		89 fr.	
20	= no. 54		179 pieces	
21	= no. 32		483 pieces	+
22	= no. 56		142 "	
23	= ?		c. 100	988
			<hr/>	
			c. 3701	

Tafeln

- a. enthält grosse Deckel  
~~++~~ 7+8
- b.
- c.
- 1+2 (ungebr. elendes Zeug *ill*)  
 3+4 ( " " " )  
 5+6 ( " " " )  
 9+10 (sehr voll, aber fast ausschl. Cassitenschund)
- 11+12
- ~~++~~ 13 (etliche graue, grössere ungebrannte Tafeln)
- ~~++~~ 14 (viele gute Cassiten & Könige 2 Dyn v Ur  
 15 (viele schlecht praeservierte Cassiten)
- ~~++~~ 16 (graue, ungebrannte Tafeln, Briefe etc.)  
17+18 (etliche recht gute (Cassiten).
- 19 (etliche bessere Stücke darunter)
- ~~++~~ 20+21 (sehr gute Kiste, beste) viele (250 kleine Ba-bi-ba tafeln).  
 21 enthält Teile v no 20, Anzahl sehr gute II Dynastie v Ur darin
- ~~++~~ 22 (Fragment eines 6eckigen cylinders + anderer Sachen, grössere  
 Tafeln)
- { — 22-25 (hat etliche schöne darin)  
 26-28  
 — ~~+~~ 29 (etliche sehr schöne grosse *ill*stücke)
- 30
- ~~++~~ 31+32 enthält alles was von Zigurat-Tafeln übrig war (v no 12) u etliche  
 größere Fragmente.
- ~~++~~ 33+35 enthält Terracotten, Bronzen etc, Beads  
 34+36 (Kassitenschd, etliche Fragm v Briefen)
- ~~++~~ 37+38, etliche Fragmente v Briefen, sonst viele Kassiten-Reste, ein  
 kleiner halber Thoncylinder mit etlichen  
 schön geschriebenen Zeichen.



			Transfer	3701
24	= no. ?		c. 100 fr	
25	= no. 40		124 fr.	
26	= no. ?		c. 100 fr	
27	= no. 42		104 fr	
28	= no. 41		97 "	
29	= no. 44		66 pieces	
30	= no. 38		109 fr	5001
31	= no. 12		29 p. = 24 sound + 5 fr	
32	= no. 64		161 fr.	
33	= no. 98		Terracotta	
		+ figurines, Göttinnen etc		
34	= no. 69		135 fr.	
35	= no. 96	Box with beads, cylinders, gold, silver + bronze-rings, evil eye		
36	= no 66		130 fr.	
37	= no. 65		142 fr.	
38	= no. 67		111 fr.	+
39	= no. 68		107 fr.	
40	= no. 70		123 fr.	
41	= no 71		105 fr.	
42	= no 116		151 fr.	1165
43	= no. 114		140 fr.	
44	= no. 115		224 fr.	+
45	= no. ? (Label lost)		c. 150 fr	
46	= no. 92 (40 pilfered + recaptured)		c. 120 fr	634

- 39+40 (enthält etliche Frgnte v Briefen Cassitenschund)
- 41+42 (etliche Briefe drin, *ill* " )
- 43+44 (absoluter Kassitenschund)  
sicher nicht nehmen)
- 45 (Kassitenschund, etliche Fragmente v Briefen darunter
- ✂ 46+47 (alte Tempelfragm., kleine Fragm in Pacqueten von no 47)  
wertlos, aber wichtig für *blank*
- ✂ 48+49½, wichtig, sicher nehmen, etliche große, ganze u. gute Fragmente,  
besonders eine große zerbrochene Tafel
- ✂ 50 , sehr gut, viele alte vom Tempel + 2 zerbrochene Stempel Sargons.
- ✂ 51+52 enthält eine ziemlich ganze alte Tafel + Hunderte kleiner Fragmente  
uralter Zeit in ungebranntem Thon
- ✂ 53+54 Case tablets + viele alte Tafeln, sehr wichtig (*ill.* Lage schöne erhaltene!!)

- Pottery ✂ 55 (Pottery + Phalli, nur obere Schicht untersucht)
- " ✂ 56 (16 vases + bowls, 1 frgm of inscribed brick, viell *ill.* Marmor Vasen)
- ✂ 57 (141 fragm Tafeln, bessere Sorte nehmen, einige fragm ungebrannte  
Cylinder)
- ✂ 58+59 alles Tempelfragmente + Liste ältester Zeit
- ✂ 60+61 Cassiten (II), etliche alte gute Tempel
- ✂ 61 (1 Layer + 62) bessere grössere Fragmente
- ✂ 63+64, etliche " "

unter diesen muss <sup>54</sup>Liste II Dyn v Ur *ill*

Transfer: 6800  
(v letzten Pensum 634)

no. 47 = no. 94 179 fr. tablets  
 no. 48 = no. 90 126 fr. "  
 no. 49 = no. 91 (Temple Hill) 110 fr. "  
 6 drin  
 no. 50 = no. 95 120 fr. " +  
 no. 51 = no. 62 133 fr. "  
 no. 52 = no. 89 (Temple) 198 fr. "  
 no. 53 = no. 93 (2 parcels 119 fr. "  
 19 case tablets  
*Ill.*)

no. 54 = no. ? Temple Hill c 150 fr. " 1136  
 Masse kleinerer Tafeln v Zeit Narâm-Sins

~~no. 55 = no. 119 (Pottery + Phalli) nur etliche von der oberen Schicht herausgenommen~~

~~no. 56 = no. 120 (16 vases + bowls, 1 fr. of inscribed brick viell. wichtig), 2 emailierte  
 Deckel + 1 *ill.* v. Bronze herausgenommen~~

~~no. 57 = no. 50, bessere Sorte Fragmente, einige Frgnte v alten eckigen Thon-cylindern  
 141 fr~~

no. 58 = no. 122 (73 fr.)	Tafeln	}	772
no. 59 = no. 48 (97 fr.)	"		
no. 60 = no. 51 (142 " )	"		
no. 61 = no. 46 (91 fr.)	"		
no. 62 = no. ? 45(?) (68 fr	"		
no. 63 = no. 49 (60 fr)	"		
no. 64 = no. 47 (100 fr.)	"		

Pottery  
~~no. 65 = no. 107 (Pottery + Fragm. v Vasen, viele können zusammengesetzt werden)~~

~~no. 66 = no. 105 (16 pieces of very bad pottery, broken + 1 packet of glass, very bad)~~

~~no. 67 = no. 104 (17 water vents of Temple of Bêl)~~

no. 71 = no. 58 (266 ganze + 68 fragment. tablets) sehr wichtige Kiste	}	685
no. 80 = no. 59 (65 sound + 296 fragnt " )		

64 Kisten Tafeln

9393

77+80

Briefe; 2. Dyn v Ur, + Stamp v Narâm-Sin (gut erhalten)  
+ 2 Lagen von 80 (Cassiten, viele gute)

80 (Cassitenschund)

N<sup>o</sup> II

96+97

96 = Hay. no. 23 = 140 fragments of tablets

97 = " no. 25 = 124 " " " 264

(I-II)

Diese Kiste enthält grössere, wichtige Fragmente, ein ganz grosses oben

102+103

102 = Hay. no. 22 = 200 fragm. tablets

103 = Hay. no. 61 = 93 " "

+

293 fragm. tablets

293

2 kleine ganze Cassitentafeln aus d. F....

1 Fragm. des boundary stone " " "

16 fragm von Mound VIII (von pottery box)

+ grössere Fragm der Cassiten

+

Nicht 104+105+106 = Schund der Cassiten

104 = Hay. no. 28 = 118 fr

105 = " " 27 = 207 "

106 = " " 13 = 173 "

498 fr

498

I

107+108 = Hay no. 26 = 87 pieces (4 packages of reunited tablets,

+ 2 large ones retained)

+

Hay. no. 83 = 158 fragments

245

245

2 grosse schöne Packete hineingethan + etliche grosse Tafeln

I

109+110

109 = Hay. no. 80 (17 sound + 180 fr. tablets) = 197

110 = " " 87 (46 sound, 24 slightly broken) +

101 fragm ones = 171

368

368

viele wichtige ganze darunter, Neubabyl. + Ašur-etil..-ilani

Total 11061

40 111+112+113 = Hay. no 12+15+85 (6 small sound tablets + 104 Fragmts of Tablets from brick pavent N to of Ziggurat) + 250 fr nehmen  
 106 fragmt, weisses Papier, (oben Kassitenschund)

114+115+116(1/2) (114 = Hay. no 82 = 169 fr.) = Kassiten (gute) + 2 Dyn. v Ur (gute)  
 (115 = " " 17 = 208 " ) nichts gutes } einige  
 sicher (116 = " " 84 1/2 = 64 sound) " " } recht gute  
 1 Cadaster 120 1/2

117-118 (+116 1/2) (117 = Hay. no 14, 209 fr. } unten einige wenige ganze  
 kaum (118 = " " 20, 240 " } v 2 Dyn v Ur.

119-120 (119 = Hay. no. 86, 128 fr, einige recht nette Tafeln der Cassiten + andere Dyn  
 (120 = " " 81, 133 " , Schund

II  
 121-122 (121 = Hay. no 18 (200 fr. tablettes) } einige grosse drin  
 (122 = " " 45 (56 inscr charms) }  
 ganz Terracotta dog  
 sicher Cone 1 Sect of inscribed cone  
 16 fragm tablets reunited + wrapped

123-124 (123 = Hay. no. 63, 63 fr tablettes } Cassiten  
 (124 = " " 16, 177 " " }

im Falle das geht, weil nicht sicher ob Hay no 45 = no 112 oder no 123.

41 Ausgepackt.

Dienst., Sept 7 6 Kisten, = zurückgepackte 4 Kisten 619 fr

Mittw, " 8 6 " = 7+8 | 9+10 | 11+12 = 3 "

---

125-126 (Hay. no. 19 (125) = 138 fr tablettes }  
 sicher ( " " 21 (126) = 44 sound " } einige sehr gute Cassiten + andere  
 55 fr. " }

127 = Haynes, no ?  
 grosse Frngt v Cassiten (viell)

128 = Whorls (2)

*rest of p. 41 and p. 42 blank*

43 no 11. 12 (6 small sound + 104 fr tablets)

no 13 = 173 fr tablets

no 10 = *blank*

no 82 = 169 fr tablets

no 86 = 126 " "

" 81 = 133 " "

" 84 = 64 sound + 120 fr tablets

" 80 *blank*

" (1)18 = 200 fr tablets

" 19 = 138 fr tablets

" 14 = 209 " "

" 63 = *blank*

" 45 – *blank*

*rest of page empty*

44	W.	B	Fr	W D	B D	To
35			81			
36			191			
37			153			
38			101			
39			86			
40			123			
41			97			
42			104			
43			115			
/44	2	25	33	6		66
/45	10	58	charms			68
46			91			
47			100			
48			97			
49			60			
50			144			
51	3 jarcovers		142			
52			196			
+53	106		40	2		148
+54	145		34			179
55			66			
≡≡≡56 Double size	75		63	4 Prisms, stele		142
≡≡≡57 "	17		126			143

45 Skulls

Pottery, Bronze continued.

○ = nicht nehmen

no. 86 = Hay. no. 126, (3 skulls), sehr schlecht, fast Staub

no. 87 = " " 127 (" " ), schlecht erhalten

no. 88 = " " 124 (" " ), " "

no. 89 = " " 125 (" " ) sehr schlecht " .

nicht nehmen  
no. 90 = " " 8 (1<sup>st</sup> coffin lid + 2 fragm. of green glazed coffin)

no. 91 = Hay. no. 6 (ziemlich gute pottery, (jewel-can herausgenommen + 1 model of clay + 1 fr. of a vase)

no. 92 = Hay. no. 5, ordinäre, aber gut erhaltene pottery


no. 93 = Hay. no. 7, ganz gewöhnliche Pottery, nur 1  darin

no. 94 = Hay. no. 4, ordinäre pottery, (18 Stück) (1 grosse runde Schüssel darunter)

viell  
no. 95 = Hay. no. 3 ordinary pottery

sicher nehmen  
no. 98 = Hay. no. 1 (Sargon brick stamp herausgenommen) Temple-Hill (alles sonst dringelassen)

sicher  
no. 99 = Hay. no. 10 (Mortar from ziggurat, ein Mörser ohne Inschrift von unter der Platform Narâm-Sins hineingelegt von Bedri.

nicht  
no. 100 = Hay. no. 9, 12 Fragm. v Sarcophagen mit weibl Figuren   
viell.

Hay 101 = Hay. no. 2 (? , aber wahrscheinlich H. no. 2) Sicher nehmen  
eine ganze Reihe von Cylindern + beads dringelassen



*rest of page empty*



		W	B	To
<del>58</del>	Double size	266	68	334
<del>59</del>	"	65	298	361 ( <i>sic</i> )
60	Reg.		87	<u><u>        </u></u>
				6932
		Whole	Bro	
61	R.		93	
62			133	
63			63	
64			161	
65			142	
66			130	
67			111	
68			107	
69			135	
70			123	
71			105	
72			142	
73			119	
74			128	
75			84	
<del>76</del>		22	205	
<del>77</del>		172	62	
<del>78</del>		47	281	
<del>79</del>		223	87	

	Nehmen		Schlecht
	no. 55	Pottery (Vases, etc.) + Phalli, nur obere Schicht untersucht [= Hay no. 119]	
	(nicht.)		
	no. 56	16 vases + bowls, fragm. of inscribed brick, viell auch [= Hay no 120] Fragm von Marmor Vasen	
	nicht		
0	no. 65	(Pottery + Fragm. v Vasen, viele können zusammengesetzt werden) vollständig = Hay. no. 107]	
0		viell. [16 pieces of broken pottery, <u>very bad</u> ] Hay no 105	→ 66
	nicht		
+	no. 67	17 water vents from Temple, die 3 oberen besten herausgenommen, viell. liegen darunter noch ein paar ganze. [Hay no. 104]	
0		[allerschlechteste pottery, nicht nehmen]	→ 68
	oben		
0	no. 69	enthält von Haynes aufgezogene Bronzen + Eisengeräte = Hay. no 120	
+	no. 70	14 Packete v. Glass Splittern, noch nicht untersucht [= Hay. no. 110]	
+	no. 71	20 fine Glass(?) bottles, sicher nehmen, etliche gute	
0		[Masse von Glasssplittern]	72
+	no. 73	Emaillierte Pottery (etliche gute) + 1 kleines Fragm mit Maus [= Hay. no 111]	
+	no. 74	25 Fragm. of Vater ( <i>sic</i> ) Vents, Temple des Bêl ( <u>alle drin</u> ) [= Hay no. 103]	
0		[Glasschund, viell = Hay no 111, doch cf. no 73]	→ 75
+	<del>no.</del> 76	<u>Wichtige Kiste</u> mit vielen Kästen mit Resten v. Leinwand v. Gräbern alter Bronze, etliche älteste Tafeln + einen wichtige Relieffragment.	
+	no 78	= no. 101 (480 whirls, tripods, etc, viell wichtiges darunter)	
0	Viell. nehmen	[= Hay. ? Fragments of water vents] = Hay. no 102?	79
+	<del>no.</del> 81 = Hay 130:	Inscribed Stone Sacrificial List, jar cover in 3 pieces, 2 fragm. of large perforated cover (4), 1 mortar + pestle from N.-Sin level, 10 Hollow-headed Phalli from Caravanserai	
	Bone		
+	no. 82 = (Hay. no ?)	31 inch langer Knochen from depth of 20 feet, letter of Jan. 7, 1895	

+ no. 83 = Hay. no 97: fragm. of 1 large bronze vase (mit Henkel)  
 2 bronze bowls in fragm  
 2 ill. fragm of bronze } ein Stück mit Henkel  
 herausgenommen

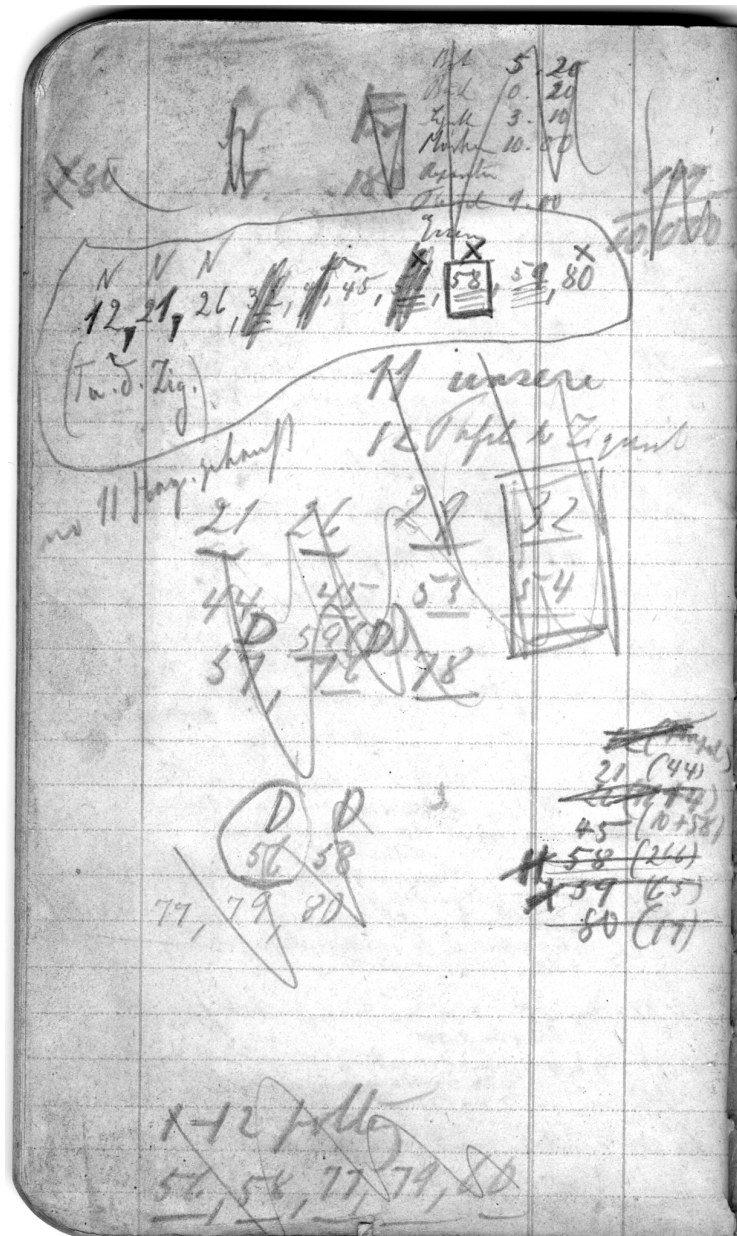
Skulls

+ ~~no.~~ no. 84 = Hay. no 123, 3 skulls (1 sehr guter drin)

0 viell? Hay. no 128 (Bones + Beads), 2 Ringe von Silber  
 + einige beads herausgenommen

85

48



The End

*1892-08-22. Haynes to the Babylonian Exploration Fund. UPMAA\_Nippur\_08.08, 22-25. HO*

Copy.

Newport, August 22, 1892.

I, the undersigned, John Henry Haynes, being familiar with the mounds of Niffer, and being acquainted with its neighboring people, in consideration of a salary of Two thousand dollars per annum for two years ending September 1, 1894, do hereby covenant and agree to return as speedily as possible to Niffer in behalf of the Babylonian Exploration Fund, to conduct excavations with Arab workmen, amounting in all to not less than 18,000 days' labor, to be completed not later than on the First day of May, 1894; the total cost of excavation, equipment, travelling expenses of self, freight and all other expenses of packing and transporting antiquities from Niffer to Constantinople, and such part as may be assigned to the Babylonian Exploration Fund to be boxed, shipped and delivered in Philadelphia; together with all other legitimate expenses pertaining thereto, not to exceed Ten thousand dollars, exclusive of salary, nor to exceed Fourteen thousand dollars, including two years' salary, which term of service shall expire on the First day of September, 1894.

It is agreed that the above mentioned amount shall be paid as follows:- \$4,000. at present, in cash or sterling credit; \$5,000. to be available on and after Jan. 1, 1893; and \$5,000. to be available on and after Jan. 1, 1894.

It is understood that monthly reports as to finances and results of work shall be forwarded to the Committee's Chairman, E.W. Clark, Esq., of Philadelphia.

P. I. and P. II. on paper attached and regarded as parts of this contract.

(signed) John Henry Haynes.

P. I.- In case the permit cannot be obtained for Niffer in a reasonable period (say by Dec. 1, 1892), Mr. Haynes is to return at once by most direct route to America, his travelling expenses being paid and his salary continues at rate of \$166.66 per month until 3 months after arrival, or else he is to receive a sum of \$750., in lieu of all claims upon the Committee for expense and salary.

P. II.- In case Mr. Haynes shows by his monthly reports, in the judgment of the Committee that the work at Niffer is not sufficiently productive to warrant continuance, then it shall be in the power of the Committee to order an abandonment of the exploration at any time, and under these circumstances, Mr. Haynes shall receive his travelling expenses back to Constantinople or America, and on arriving there his financial relations with the Committee shall be equitably adjusted; it shall be understood further that Mr. Haynes shall at all times have the right and duty of abandoning the work if he becomes convinced that it can not be prosecuted to a successful issue because of reasons beyond his control, and then in like manner his relations shall be a matter for equitable adjustment.

(signed) John Henry Haynes.

Aug. 22nd, 1892.

Schedule of Expenses.

Servants & Assistants,	\$700.00	
Freight, General Travelling		
Expenses between Baghdad & Niffer,	350.00	
Bringing water,	310.00	No. 1
Exchange,	50.00	
Equipment,	300.00	
Fuel & Lights,	190.00	
Living expenses,	900.00	
Photo. supplies,	200.00	
Correspondence,	50.00	
Guards, Gifts, Native Agent, Miscellanies,	<u>950.00</u>	\$4,000.00

Estimates for 18 months' Excavations at Niffer.

For labor in excavating,	\$3,100.00	
Salary \$ 1584. & travelling expenses of Commissioner,	1,900.00	
Travelling expenses of Director,	1,000.00	
Miscellanies (See No. 1),	4,000.00	
Salary of Director, two years,	<u>4,000.00</u>	\$14,000.00

List of Tablets mostly unburned packed in small Cases

Case N<sup>o</sup> 1 contains 68 sound tablets ~~the largest~~

"	"	2	"	81	"	"													
"	"	3	"	55	cracked	"													whose inscriptions are perfect
"	"	4	"	47	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
"	"	5	"	75	Sound	"													with slight defects
"	"	6	"	[ 5 ]	broken	"	"	"	"	"	"	"	"	"	"	"	"	"	"
"	"	7	"	53	broken and defective	tablets													
"	"	8	"	63	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
"	"	9	"	72	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
"	"	10	"	129	fragments equal to and less than half tablets														
"	"	11	"	44	"														wrapped in paper after which this case was filled in uncounted several fragments small packed without paper.

Total = 755

1893-01-12. Haynes to E.W. Clark. UPMAA\_Nippur\_02.06, 1-2. HO

Aleppo Jan 12<sup>th</sup> 1893.

My dear Mr. Clark:

I arrived at Alexandretta on the 6<sup>th</sup> and in Aleppo the 9<sup>th</sup> through storm and mud, and still it rains with no promise of clearing.

I have had difficulty and delay to secure mules for the journey to Baghdad.

Yesterday I secured a man who today breaks his written guarantee, but fortunately I have found a mulateer from Mardin with 9 animals – horses and mules – and two men besides himself, who agrees to make the trip for 21 liras.

He has more animals than I want but I can do no better until some Baghdad caravan arrives and wants loads to carry back to B.

The loads are now bound up and the mulateers have gone to bring their animals. We shall go only three or four miles to night just to make a start, but tomorrow the serious journey begins, and I hope the skies will clear the roads dry soon.

I shall be in B. sometime from the 10<sup>th</sup> to the 15<sup>th</sup> of February if all goes well.

The abundant rains promise abundant crops. Wheat & Barley are already getting a good start.

Hastily and sincerely Yrs,

J. H. Haynes

1893-04-03. Haynes to E.W. Clark. UPMAA\_Nippur\_02.06, 8-10. HO

Niffer April 3<sup>rd</sup> 1893

My Dear Mr. Clark:

Your favor of Feb 13<sup>th</sup> has just reached me safely established in tents at Niffer and ready to begin systematic excavations this week.

One trusted servant has been seriously ill in bed for 19 days, but is now mending. Another has suffered to the extent of being almost incapacitated for service. This has increased my burdens; but thanks to the kind Providence that watches over all his children I have been equal to the demands upon my strength.

At length satisfactory friendly relations are established with Haji Tarfa and the sub chief nearest to us, who pledge protection at half the cost of the year 1890.

The chiefs in council set to work to secure the former terms, and as it is evident that our old enemies, the Es-Said Arabs, plan mischief it was necessary to conclude treaties with our friends.

Asking for two paid guards I was laughed to scorn and met by a firm demand for twenty. It required all the wit and patience I could muster to bring their demands down to ten paid guards at the former price per capita, and to secure these terms I threatened to return to the U.S. I could make no better terms and the chiefs being in need of money accepted my ultimatum when they saw they could do no better. It was as if they put me between two millstones and ground hard.

But I have their united good will and now that we have agreed to terms they try to render efficient service.

I am now building a store room and kitchen of mud and brick that we may not be burned out by would be robbers.

Oweing to press of duties I am unable to forward the monthly financial statement as I promise hereafter to do. I beg you to overlook the delay for this time.

The £/C for £800 is now in Mr Blockeys hands. I shall use only £100 before Sept if all goes as I plan and I shall try to fulfil all plans and meet your expectations craving your indulgence for apparent delays which will impress your committee as needless.

I have pushed on as fast as I could under the circumstances and when I see you and your committee I am sure they will be convinced of the truth of this statement though I know how long the time seems to them while awaiting definite news which comes to them slowly.

I am

Very truly your

John Henry Haynes



1893-05-31. Haynes to E.W. Clark. UPMAA\_Nippur\_02.06, 12-13. HO

Niffer May 31, 1893

Mr. E.W. Clark

Chair of Baby. Ex. Fund.

Bullitt Building

Philadelphia Pa.

Dear Sir:

In sending you the accompanying Statement of Expenses for May I am more than glad to add a hasty word to say that we have discovered a room 120 feet S from our first years camp, whose floor, 20 feet below the surface is, so far as we have yet removed the accumulated earth, covered with tablets many of them bearing seal impressions. Among them are 20 clay seals.

It will require a couple of days to explore the whole room.

All the camp servants are in usual health and everything connected with our work is in shape and to my mind after a prolonged struggle with many difficulties.

My own health is better than it has been for several years and I do not fear the approaching heat of summer, but hope that these long days may bring us a good harvest of valuable inscriptions.

Next week I shall write Dr. Peters an account of our work up to this point and shall try this week to write him of the progress and state of our work.

We have 50 men now, and succeed in getting good service from them; but it takes my time to look after them.

Highest temperature to date is 102° in the shade.

I am

Your obedient Servant

John Henry Haynes

1893-09-02. Haynes to E.W. Clark. UPMAA\_Nippur\_08.03, 10-11. HO

Niffer Sept. 2<sup>nd</sup> 1893

To

Mr. E.W. Clark,  
Chairman of Baby. Exploration Fund.  
Bullitt Building  
Philadelphia, Pa.  
U.S.A.

Sir:

I have the honor to enclose herewith a statement of expenses for the five weeks ending today, it being inconvenient to observe the calendar months in these reports.

Comparing the estimates made in my letter of August 20<sup>th</sup> with this and preceeding reports you will observe that nothing has yet been charged on the salaries of assistants and servants, to whom something less than \$300.<sup>00</sup> will be due at the end of this month, which together with a suitable allowance to an agent in Baghdad, and to one in Hillah, comprise the debts of the expedition, for which settlement will be made at the expiration of our work.

This week 53 men were employed and 57 are engaged for next week.

The heat is less intense, the maximum temperature ranging from 97° to 103° in dense shade, which lower temperature affords great relief.

My next financial statement will be made September 30<sup>th</sup>.

I have the honor, Sir, to remain

Your most obedient Servant

John Henry Haynes

Director of Ex. to Niffer.

1893-09-30. Haynes to E.W. Clark. UPMAA\_Nippur\_08.03, 12-13. L-336.12. HO

Niffer Sept. 30. 1893

To

Mr. E.W. Clark:

Chairman of Baby. Ex. Fund.

Bullitt Building

Philadelphia, Pa.

U.S.A.

Sir:

I beg leave to enclose herewith an official statement of expenses for the four weeks ending today, which expenses are reduced to the lowest possible rates under the existing circumstances.

I also beg to state that since the beginning of this month we have happily found in the trenches and tunnels of the Temple Enclosure the following. - - - -

- 1 Door Socket of Ur Gur c. B.C. 2800.
- 3 Inscriptions of King Garne
- 65 Vase-fragments – 23 being inscribed –
- 1 Nose of a lifesize statue (black basalt)
- 1 Fragment of unknown Sculpture.
- 1 Tablet 13 feet below the Sargon level.

I have the honor, Sir, to remain

Your most obedient Servant

John Henry Haynes

Director of Expedition to Niffer

1893-10-14. Haynes to Peters. UPMAA\_Nippur\_05.01, 91-92. HO

Niffer, Oct. 14<sup>th</sup>, 1893.

To

Rev John P. Peters Ph.D.

162 West 105<sup>th</sup> Street

New York U.S.A.

My Dear Dr Peters:

Oweing to press of duties, among which the packing of antiquities has proven an arduous task, it is impossible for me today to write you a full or satisfactory report of our work for the two weeks since last I wrote you.

We have just finished packing 6941 tablets and fragments of tablets – mostly fragments large and small – into 66 small cases of uniform size, to which the commissioner is now affixing his seal.

On the 10<sup>th</sup> instant was received from Mr. Blockey a telegram announcing the appropriation of £400. for the continuance of the work, upon receipt of which I immediately began to enlarge the trenches on the south-eastern buttress of the ziggurat and over the supposed place of sacrifice. The work on the buttress has so far been to remove a mass of mud bricks which naturally produces very little in tangible results; but I hope the results will in the end repay the cost of the labor expended upon it.

I cannot write more at this time and next week owing to disturbances among the Arabs may be unable to send away the post at all; but I will endeavor to make your committee glad by reason of the addition just made to my funds

Hastily and sincerely yours

J.H. Haynes

P.S. I feel in duty bound to add that cholera is round about us in its work of death, but the disease has not yet come nigh our camp and I trust that we may be spared from its ravages.

It is of course impossible to quarantine our camp and continue our work, yet every reasonable care and precaution is taken in point of sanitation and our work continues without interruption of any sort, though not without obstacles of various kinds.

The Lord is our Shepherd and He will carry us through in His own way.

J.H.H.

1893-10-28. Haynes to E.W. Clark. UPMAA\_Nippur\_08.03, 33-34. L-336,9. HO

Niffer Oct. 28<sup>th</sup> 1893

To

Mr. E.W. Clark  
Chairman of Baby. Ex. Fund  
Bullitt Building  
Philadelphia, Pa.  
U.S.A.

Sir:-

I beg leave to enclose herewith a correct statement of expenses for the four weeks ending today, and also to enclose a list of 7036 tablets and fragments of tablets recently packed into 66 small cases of uniform size.

Hence the number of tablets and fragments of tablets contained in each case is a fair index of their relative size.

Including the tablets previously reported we now have a grand total of 7791 tablets and fragments of tablets packed into 77 small cases duly sealed, labelled and described in a manner that I hope will facilitate division in Constantinople.

I have the honor, Sir, to remain

Your most obedient Servant

John Henry Haynes

Director of Expedition to Niffer

*Added by E.W. Clark:*

The list referred to in above letter was of the Contents of 66 cases – whole tablets 266, slightly injured 216, fragments 6540, whole discs 8, Broken discs 6, Total 7036 – the cases numbered 1 to 11 contained 755 of whole tablets & fragments.

D<sup>r</sup> Peters writes “The proportion of entire or practically entire tablets to fragments is as large as can be expected and fully as large as has usually been found in Babylonian excavations, or indeed, if we can rely absolutely on the testimony brought out in the recent British Museum trial in London, much larger than the proportion of good to bad in the famous excavations of Rassam at Abou Habbah”

E.W.C

1894-00-00. Haynes, Hilprecht, Meyer, Box labels. HSN 79E04–79E14. HO

*Handwritings: HVH = Hilprecht; JAM = Meyer; JHH = Haynes*

79E04                  *HVH*                  Von kleiner Kiste innerhalb no 99 (= Hay. no 10)

*JHH*                  2 Blue thin Bottles  
1 Small Bottle  
1 Glass tube or cylinder  
1 Fragment of Handled Ewer Glass

79E05                  *JHH*    N<sup>o</sup> 7                  *HVH*    no. 93

*JAM*                  1 Bronze melting pot (Ziaret)  
1 Bronze dish(?) (cancover) (")  
1 Spherical jar VIII  
1 Tapering side cap (?)  
1 spherical jar (broken)  
1 Vase (ears at mouth)  
1 vase (wide mouth) containing  
1 small vase (flange top).  
2 Round bottom vases  
3 shallow dishes (1 broken).  
1 clay stand (brazier?) IV  
4 Shallow dishes  
1 Jar cover(?)  
4 Shallow dishes  
1 Rude dish  
1 Large vase neck(?)

Nearly all from VI and VIII

HSN 79E06                  *JHH*    N<sup>o</sup> 6                  *HVH*    no. 91

*JAM*                  (In a corned beef can)  
(A) 6 Match boxes containing woven fabrics  
                              from the Jewel Jars, Mound VIII  
(B) 2 leaves and tube of gold (in envelope)

(C) 1 large string of beads (coffin 37)  
(D) 1 small string of beads (coffin 35)  
(E) Ring set (in envelope)  
Black bead (charred)

---

1 Large mouth vase containing  
1 small vase, 1 small jar.  
1 small vase (bail handles.)  
1 small vase (wide mouth)  
1 large one handle jar  
1 Jar made of 2 flat dishes.  
1 spherical jar VIII  
2 Flat dishes (1 from VI)  
1 vase reeded sides  
1 one handle jar (small)  
2 clay models of boats (?) (broken)

79E07

*JHH*: N° 3      *HVH* no. 95

*JAM*      1 large *ill.* bowl  
from temple mound  
containing 2 Primitive bowls from low level

---

2 clay goblets (1 broken)  
2 vases  
1 slender pitcher mound VI  
1 *ill* pitcher mound VI  
4 small vases.  
1 lid(?).

79E08

*JHH* N° 87      *HVH* = 110

*JHH*      Containing  
46 Sound Tablets  
24 Slightly broken  
101 Fragmentary  
in 4 courses  
Hazam + Abud

79E09. Ordinary label torn across, after being written

HVH: no 11

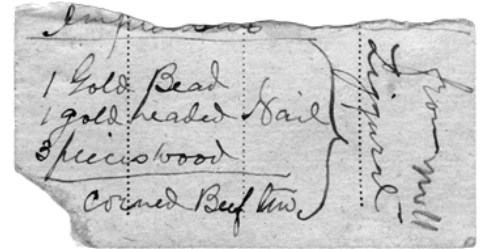
JHH Important

1 Gold Bead  
 1 gold headed Nail  
 3 pieces wood

---

corned Beef tin

} from Ziggurat



79E11 JHH N° 45 HVH = 123

56 Inscribed Charms + Fragments  
 1 " Dog of Terra Cotta.  
 1 Section of Inscribed Cone  
 10 Fragmentary Tablets reunited and wrapped  
 in parcels

} Obverse and  
 reverse of the  
 same label

79E10 HVH ? 124

JHH Containing  
 Unfinished Vase of Alu Sharshid  
 Black rude Mortar – Sargon level  
 Marble Mortar or Tent Pole

79E12 JHH No. 1 Containing Objects from Temple Hill

HVH 198

JAM 3 Pitchers  
 2 enamelled vases  
 9 or 10 rude clay cups.  
 1 twisted dish  
 1 Sargon brick stamp  
 1 miniature brazier  
 1 hand-made vase  
 1 flat bowl wine glass.  
 1 miniature jar  
 1 uninscribed seal  
 2 small beads  
 1 bottom of a jar



2 clay water taps  
 2 enameled lamps  
 7 fragments of cones  
 3 bronze nails  
 Lot of bronze fragments  
 2 clay disks.  
 1 stone staff head.  
 2 rings 2 whorls  
 1 clay ornament  
 2 stone pendants  
 3 clay tripods  
 1 fragment of clay whorl.  
 1 cylinder 1 copper coin  
 1 scrap of gold.

79E13

*JHH* N° 10 Containing *HVH* = 99.

<i>JAM</i>	In a wooden box.	Mound
	2 glass bottles (large)	VIII
	1 very small glass bottle	IV
	Neck of glass ewer	VI
	1 cylinder of glass	VI (ziaret)
<hr/>		
	1 rude clay melting pot (?) (Pre-ur Gur)	
	1 piece of roof spout	VI
	1 straight sided dish	VI
	Broken glass bottles	VI
	Blue enameled whorl with stick	VIII
	1 small green enamel vase	
	10 match-boxes full of mortar from 13×13×9 crude brick construction of ziggurat.	

79E14

*JHH* N° 12 Containing

6 small sound Tablets  
 104 Fragments of Tablets  
 from brick pavement N.W. of ziggurat. Nov. 9, 1894

*back side* 21 + 32 + 46 + 5

*1894-00-00. Hilprecht, Inscription on door socket. UPMAA\_Nippur\_05.02, 23. HO*

Translation by H.V. Hilprecht Ph. D. of inscription on Door Socket of Ur Gur discovered Sept 20, 1894.


---

“To Bel, lord of countries, his lord, Ur-Gur, the powerful champion, King of the country Ur, King of Sumer and Accad, has restored E-Kur, his beloved temple”

1

Neue Niffer-Sendung  
(angekommen Montag, 6. Aug 1894)  
in Constant.

Sarcophage, grün emailliert

- 1) No. 41, July 1<sup>st</sup>, 1893, gross.
- 2) " ?, unnumer, "
- 3) " 82, Sept. 25<sup>th</sup> 1893, "
- 4) " ?, un. grosser, email.
- 5) " ?, kleiner Kinder Sarcoph. emailliert
- 6) " 83, Sept. 25, 1893, grosser grün email.
- 7) " 46, July 18, 1893 " "
- 8) " 50, July 24, 1893, grün, email.
- 9 " 49, July 24, 1893, gross\_\_\_\_\_ 9 Sarcop
- 10) ½ grün email. grosser Sarcophag 1 Fragm
- 11) 4 einfache Ring  in Terracotta 4 Ringe

*Remainder of page blank*




2

I Bur-Sin




- 1 iluBur-iluEN-ZU
- 2 EN-LIL-KI-a
- 3 dingirEN-LIL-LI
- 4 MU-PAD-DA
- 5 SAG-UŠ
- 6 E dingirEN-LIL[*ill.*]
- 7 UŠ lig-ga
- 8 lugal-Urum-ki-ma

9 " an-ub-da, tab-tab-da

## II Ur-Gur

- 1 Ur-<sup>dingir</sup>Gur
- 2 lugal Urum-<sup>ki</sup>-ma 
- 3 lugal Ki-EN-GI, Ki-  (Sumer)
- 4 mulu E-EN-LIL-LAL
- 5 in-ru()-a



## III Išme-Dagan

- 1 <sup>Dingir</sup>Iš-me-<sup>dingir</sup>Da-gan
- 2 lugal KI-EN-GI  
KI -ra
- 3 UD <sup>dingir</sup>EN-LIL-LI
- 4 <sup>dingir</sup>NIN-IB
- 5 UR-  lig-ga-na
- 6 PA- 






*continued p. 4*

3

### Bricks

- 1) Runde bricks, unbeschrieben 8
- 2)   <sup>ilu</sup>EN-Zu (Bur-Sin II v Ur)  
geschrieben, 9zeilig 2  
1, 1 (u. 1 auf Seite) 1
- 3) Ur-Gur, gestempelt, 5zeilig } 7  
1 }  
...geschrieben: 1. 1
- 4) Išme-Dagan, geschrieben, 12zeilig  
1,1. 5
- 5) Aššurbanapal, gestempelt auf  
Hauptseite 11 Zeilen (ist publiciert)  
1,1,11 4  
Gestempelt auf Nebenseite: 1 3  
1,1(einer ist einem anderen übergestempelt)
- 6) 1 unbekannter auf Seite 1.



4 *continued from p. 2*

7 mu-ni-in  -a  
8   
9 mu-na-du   
10  -ra  
11  ki-ag-a-ni  
12 mu-na-an-du-ba-a-an





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5


Bricks, là-bas

1. Ur-Ninib, grosse, gestemp. 6
2. " " , kleine 6
- 3 1 Fragm grün emaiill. brick
- 4 Half Bricks from wall 4  
F S. E. extremity of wall  
ohne Inschrift   
and East Corner
- 5 From the South Corner 6  
of the Zigurat   
19<sup>th</sup> March '94

6 9330 (CBS 9330 = BE I/2, 113)

1 NIN-LILA-ra  
2 Er()-na-(BAD)b (*sic*)-bi  
3  (šangû) EN-LIL

cf D.A.W  
p 176 ff  
u AL<sup>3</sup>, 84

4	ḥe-til-la-ku	
5	ur	ga
6	dup-sar	
7	E <sup>ilu</sup> EN-LIL-KA (SAG)-ge	
8	GA til-la-ku	den Tempel für Wohnstätte des Lebens
9	nam-til	zur Erhaltung des Lebens
10	 (ama)	-ku
11	nam-til	und des Lebens
12	dam tura-na-ku	seiner Schwiegertochter es geweiht
13	a-mu-na-šub	

7 9329 (CBS 9329 = BE I/2, 112)

1	iluNIN-LIL	
2	(u) iluEN-LIL-LA(L)	
3	dum ad-da-ge	
4	ga til-la-ku	für die Wohnstädte des Lebens
5	nam-til	für das Leben
6	dam tura-na-ku	seiner Schwiegertochter
7	a-mu-na-šub	es geweiht

8-9 9574 + 9575 + 9579 (CBS 9574+9575+9579 = BE I/2, 110)

1	ne(?) <u>-a</u>		
2	mu-ne- <u>gi</u>	(= šanânu wandeln târu ändern wenden)	diesen Namen änderte er,
3	zalam-bi	šalma-šu	sein Bild
4	azag za-gin-bi	kaspašu ibbu	sein glänzendes Silber
5	giš dig-ga-bi	išu -šu	sein ..... Holz
6	dingirEN-LIL-LA		schenkte er

7 EN-LIL<sup>ki</sup>-ku

dem Bêl

8 a-mu-na-šub

in Niffer.

*Rest of p. 8-9 blank*

*p. 10 blank*

11

~~Copien machen~~

Seiten

- |    |                               |    |
|----|-------------------------------|----|
| 1) | Für Palaeographie 2 v. Ur-Gur | 1½ |
| 2) | " " 2 v. Išme-Dagan           | 2  |
| 3) | Die grosse Nippur Tafel       | 2  |
| 4) | Brick v. Sargon               | 1. |

*Remainder of p. 11 blank*

*p. 12 blank*

[13]

Ergänzungsnoten

zu Band I

in Vorrede

14

Plate No.

Photographien

Sargon I Fragm. of a baked brick

[15]

Pl. No.

Ur-Ninib

Brick of baked clay, light brown, 31×15×7.

Nippur III, taken from a pavement underlying the South East Buttress of Z. (cf. Pl. 10, No. 18). Inscr. (written) 22.4×10, 13 li. The latter is remarkable because the beginning is at the bottom, & the end at the top of the brick, otherwise the same as Pl. 10, No. 18.

Cf. Haynes' report in  
letter of Dec. 23<sup>d</sup> '93

*Remainder of notebook empty*



*1894-00-00. Note about telegram. UPMAA\_Nippur\_08.07, 24. L-1409. HO*

Blockey Bagdad

Notify Haines (*sic*) Continue work under his letter August eighteenth 1894 – Will provide Five hundred Pound.

1894-04-20. Haynes to E.W. Clark. UPMAA\_Nippur\_04.03, 27-29. HO

Niffer, 20<sup>th</sup>, April, 1895.

To

Mr. E. W. Clark,  
Chairman of Babylonian Branch etc.  
Bullitt Building,  
Philadelphia, Pa.  
U.S.A.

Dear Sir:

In tangible results our excavations have again this week proven unproductive, but, because they are disappointing in immediate results, it does not follow that the labor has been spent in vain.

For two weeks our excavations have been confined to the southwestern borders of Mound X.

After a scrutinizing examination of the borders of the mound on this side, we shall carry the trenches toward the interior of the hill in the hope that tablets may there be found.

Greater labor is expended on excavating the borders of the mound because at a later period these places will be the dumping ground for the earth excavated from the interior of the mound.

Whether productive of tablets or otherwise this work must be done to avoid the possibility of covering to a still greater depth the buried treasures of antiquity.

The interior parts of the hill at this point may not contain tablets; yet it seems to be my plain duty to examine the spot as if it were known to conceal both tablets and cylinders, and I hope this method of procedure will meet the approval of yourself and of your committee, as it meets my own approval, for it seems to be the prudent course to be pursued.

On the fifth of January one of our older foremen, named Sultan, was summarily discharged from our service for crookedness, and his place filled by promoting a more efficient man to the vacant position.

Another foreman, whose name is Ismail, was quickly discharged on the sixth instant for resorting to the same sly methods that had caused the dismissal of his forerunner Sultan.

The expedition has long wanted to be rid of Ismail; but, until the day of his dismissal, could find no certain proof of the suspicions entertained against him, and patiently bided its time.

Only five gangs are now employed, since only five foremen now remain. The expedition would gladly increase its force of laborers, if trustworthy and efficient foremen could be found to lead a larger number of gangs.

At the present time however it is impossible to secure the services of such foremen, and it does not seem wise to employ those who cannot in all respects be depended upon for faithful service.

In the experience of two weeks, five gangs have performed the labor of six gangs, the basketmen of the sixth gang being distributed among the remaining gangs.

There has been no diminution in the number of workmen employed except a foreman and his assistant.

There is now left among our ten skilled workmen no spirit of theft, nor wish to deceive us.

I am as sure of the fidelity of those, who now remain with us, as of their bodily presence among us.

If our present force is small, it is nevertheless active, willing, and efficient; is easily controlled, and increasingly susceptible to points of honor.

Several younger men of promise are patiently acquiring a creditable degree of skill, and are learning the value of regular habits of industry and of honorable dealing with their fellow-men.

They will doubtless render good service to the expedition in the future, should explorations be long continued, as I trust will be the case.

Mahmoud Effendi still receives the commissioners salary, though for above three weeks he has not left his tent.

It being generally known that he is to be removed from his office, Mahmoud Effendi has no further influence among the Arabs, and has therefore no power to do us evil. He sits in his tent under the shadow of our house, and passively awaits the arrival of his successor.

So far as we can judge, there seems to be no special danger to threaten us until our next attempt to bring money to Niffer.

The Arabs round about us are generally quiet, though within the week a war between two subtribes has been declared, fought to its end, and peace established, to be soon broken. This war cost the lives of eleven men and has maimed more than three times that number.

I have the honor, dear Sir, to be

Your most obedient Servant

John Henry Haynes

Director etc.

*1894-04-29 and 1894-05-05. Cablegrams. UPMAA\_Nippur\_02.07, 57. TC*

Cablegram from Haynes, Bagdad, April 29, 1894.

Estimate Eight Thousand Dollars.

Advise return home refit. Tablets leave Busreh soon.

Answer May 5, 1894, to Haynes.

If you return Niffer immediately will guarantee funds on old basis until February. Otherwise work ended.

1894-05-10. Haynes to E.W. Clark. UPMAA\_Nippur\_03.11, 1-9. HO

Baghdad, May. 10<sup>th</sup>, 1894.

To

Mr. E.W. Clark,  
Chairman of Baby. Exploration Fund,  
Bullitt Building  
Philadelphia, Pa.  
U. S. A.

Dear Sir:—

Your last cablegram, received on Monday the 7<sup>th</sup> Instant, prepared me for the sudden, and I hope, wise decision I have made this morning.

Your letter of March 30<sup>th</sup> was received about 10 o'clock this morning, and within an hour afterwards I had not only decided to return to Niffer, but had induced a young man of some architectural training, who is travelling through India, Turkey and other countries, to join the expedition until February 1895 without salary. I have agreed on my part to supply all his needs, and bear all his expenses, that are not personal, and such as an expedition might properly be held responsible for, and at length to put him down at the sea coast in Syria without expense to himself on or about the first day of May 1895.

The young man is Joseph A. Meyer a graduate student in the Department of Architecture, Massachusetts Institute of Technology, Boston. He has held a travelling fellowship for two years, and is a candidate for an advanced degree. He is a good worker and I am sure will prove to be a companionable fellow, and of great service to the expedition.

With his help and companionship I am the more reconciled to return this summer to Niffer.

In your last cablegram received on the 7<sup>th</sup> Instant, you guaranteed funds to continue explorations at Niffer on the old basis until February 1895, and in your letter of March 30, received today, you ask if I would be willing to reduce my salary to \$125. a month, and if I can still further reduce the "Commissioner's salary", the "Allowance to Guards", and the "Wages of Servants", etc.

My salary is fixed by a contract to which I have been pretty rigidly held.

I understand that the present contract will expire on the 22<sup>nd</sup> of August 1894. If your Committee are unable to pay me the present salary after August 22<sup>nd</sup> of this year, and if by so doing you can establish the work on a permanent basis, you may adjust my salary for the third year of my service according to your discretion and ability to pay; but permit me to say that a summer at Niffer severely tries physical endurance, notwithstanding the fact that my own health has been equal to all demands upon it. I think no European or American should however attempt to spend a third

summer in succession at Niffer. Though my health is good I feel less vigorous than I did one year ago. I mention this fact simply in support of my opinion; not to complain in any way.

In respect to reducing the "Commissioner's salary", I must reply that it is fixed by statutory law at 20 liras or \$88. per month, and can be reduced only by consent of the appointee to the office of commissioner.

As to reducing the Allowance to the Guards I reply as follows. I do not think any appreciable reduction can be made at present; yet I will make an earnest attempt to reduce not only the Allowance to the Guards, but all unproductive payments to the lowest possible sum.

If your committee will co-operate with me, and authorize me to do so, I would like to tell the responsible sheikhs around Niffer just before my next departure from among them, that my people wish to continue the exploration of the mounds at Niffer, but that they cannot and will not return to Niffer again under the (then) existing conditions of expense, etc., etc., etc.

I should like to propound such a question to the leading chiefs one month before my final departure from Niffer, and at the time of my departure receive from them their final message to report to your committee.

If our relations with the Arabs continue to improve we may confidently expect chiefs and people to desire our people to return to Niffer to dwell among them.

The "Wages of Servants" have not exceeded \$26. per month, although the estimate was put at \$30. per month. These are the wages paid to the trusted and confidential members of the expedition, whose services are worth all they cost. To reduce their wages would be inexpedient and expensive.

I will, however, look well to the expenses, and make reductions as fast and as far as it is possible to do so.

I have expended a considerable sum of money for cylinders, terra cottas, and a few other small objects, which your committee can have for the price paid, if wanted.

I am obliged to take new supplies from Baghdad, the account of which I can only send from Niffer, since I shall leave Baghdad as soon as the supplies are secured.

I hope to resume excavations on or before the first of June.

Baghdad is still surrounded by water, and today the river is rising for the third time, having fallen but little.

Caravans cannot enter the City nor depart from it. To return to Niffer via Hillah we must make the first 15 or 16 miles by boat changing to mule caravan for the last 35 to 38 miles.

I do not apprehend any unusual delay on the journey by reason of the floods.

My next letter will be dated at Niffer.

I have the honor, Sir, to be,  
Your most obedient servant,  
John Henry Haynes.

New York, Nov. 9th, 1894.

Mr. J. H. Haynes,

Care Blockey Holtz (*sic*) & Co., Baghdad, Turkey.

My Dear Mr. Haynes:

Yours of Sept. 8th and Sept. 15th arrived in the same mail with the same postmark, which is the way in which your letters have all arrived lately.

With regard to the points which you have chosen for excavation for tablets, I would say that I am exceedingly interested in the explorations in the neighborhood of the Ziggurat and am desirous of knowing what was the real purpose of the plain to the Northwest of the Ziggurat which you suppose to have been the camping ground for the pilgrim hordes worshipping Baal's shrine.

I can see that in order to continue your work at the Temple you are anxious to conduct the excavations for tablets or other purposes as close to the Temple as possible in order not to divide your force. On the other hand I would say that I think it unwise, if the object is to secure tablets, to open up new trenches in an unknown place instead of continuing the excavations in the region where so many trenches were opened and so much work done in the second year of the excavations and where such enormous numbers of tablets going back to a period over 2000 before Christ, were discovered. Our excavations at VIII conducted in the first year on the western side and toward the middle of that hill, were not on the whole successful or satisfactory. We discovered here a couple of tablets of Ashur-Bani-Pal and the two famous tablets of Ashur-Etil-Ilani and a few other tablets of Assyrian date. Further than this we found a large room with fine bricks of unbaked clay. We also found a considerable amount of pottery, though not as much as in some other places, some graves and a few trinkets. You may, of course, there as anywhere in the mounds of Nippur make a surprising find of tablets, but as far as the indications upon which you have to work were concerned they were distinctly against your attempting this place as they had been against your attempting VII. If we have the time and the money I think it would be well to excavate all Nippur from Beginning to end. I do not think it well for you, with the small force at your disposal, to undertake searching expeditions until you have exhausted those places where we know there are large numbers of tablets. We know there are great quantities of tablets at X, and yet in all the time you have been at Nippur you have not touched a spade to the earth at that point. It seems to me, and I believe to the Committee, desirable that you should at once conduct excavations at X, with a view to securing tablets.

With regard to the determination of the object of the plain to the northwest of the Ziggurat, it is interesting and valuable to run trenches both into that plain itself and also into the surrounding hills. Too much effort, however, should not be spend in this direction, inasmuch as this is after all a side issue. I would suggest, the same thing which I suggested in my last, that a trench not involving very great labor, should be run into the plain itself.

As to the excavations which you are still continuing on the Ziggurat with a small gang of picked men, that seems to me and I think to the Committee also, a wise plan. The work you have done in the exploration of the Ziggurat deserves the very highest commendation and we should like to see the mysteries of that construction explored to the end. At the same time we feel the desirability of obtaining a supply of objects and particularly of inscribed objects, which as experience shows are not to be found upon the Temple Hill. It is on this account that we wish you at present to concentrate your energy chiefly upon an excavation of a tablet site, first X, and then such other site as you may see fit to excavate. We would, however, be glad to have you continue this small work at the Temple and hope that circumstances will allow us ultimately to complete the excavation of the Temple, so that nothing about it may be left unexplored. I note your report of the discovery of the second stage on the northeast side and the second and third stages on the northwest side and hope that very shortly Mr. Meyer will have plans for you, which you can forward, which will show us in a clear manner as he has shown us in other designs the original form of Ur-Gur's Ziggurat.

With reference to the discovery of a fragment of a stamped brick of Dungi in hill VIII, I would say that it is extremely interesting and full of suggestion. In my experience the finding of a stamped brick or even of a brick stamp or an inscription of a very ancient king at Nippur did not of necessity show that there was any construction of his in that immediate neighborhood. So the brick stamps of both Naram-Sin and Sargon were found at the south end of VII, but no constructions of these kings were found there and in fact these objects were in connection with constructions of a much later period. The same was true of a number of bricks of ancient kings which I found on hill I, some of them in tombs and other constructions of the Parthian period. Bricks and the like were carried from one part of the mound to the other. Pieces of the older constructions being reused in the later, and later objects dug out of the ground being appropriated by a generation a thousand years afterwards. With all these facts you are, however, as familiar as I am; all that I meant is that the discovery of the fragment of the Dungi brick at VIII is not in itself an evidence that you are in the ancient stratum or that there were Dungi constructions in VIII. The only other Dungi object which has been found at Nippur to the best of my knowledge is the agate tablet found in a room to the southeast of the temple, which is noted on page 48 of Hilprecht's *Old Babylonian Inscriptions* (*CBS 8598 = BE I/1, 15 and 43*).

With reference to the work which you are doing on XI. At a point numbered 5 on the line of hills XI I conducted a trench in the second year of our work which determined the fact that XI was a wall of unbaked brick. It was almost at the close of the excavations and no satisfactory results beyond this were obtained. I am delighted with the result of your excavations at this point. The discovery of a wall belonging in its lower part to Naram-Sin and in its upper part to Ur-Gur, is in itself a matter of very great importance, when in addition to that this wall throws light upon the walls of the Temple, enabling you to determine more definitely the date of the constructions there, its importance is greatly increased. You have certainly here and on the Temple found the oldest mural or monumental construction ever found in Babylon, and I congratulate you with all my heart upon this "find". Like yourself I was very much perplexed to understand what the brick stamps were for. Now that we have unbaked bricks stamped with the name of Naram-Sin the mystery begins to be solved, only you do not say whether the stamp on the brick is any one of the stamps which we have found. Can you not send us a squeeze of the stamp on one of the unbaked bricks. The juxtaposition of the bricks of Ur-Gur and those of Naram-Sin both in the outer wall and also in



the Temple foundations confirms the idea that has been in my mind for a little while and which I understand that Dr. Hilprecht has also entertained, viz: That Naram-Sin and Ur-Gur lived not far apart. It has hitherto been held that there was a difference of something like a thousand years between these two kings. Hilprecht has been inclined to fill up the gap by pushing Ur-Gur back to an earlier date; I have been inclined to fill it up by bringing him down to a later date, but both of us for various reasons resulting from the explorations at Nippur have been inclined to bring them nearer together than former scholars had done. Your present discoveries tend in the same direction very strongly.

With regard to your proposition in regard to this wall, it is the opinion of the Committee that if it can be done without any great outlay of time and money it is desirable to determine whether any earlier builder worked upon it than Naram-Sin. Much as the Committee would like to know about the construction of the wall throughout it is not the opinion of the Committee that it is desirable to cut the two parallel trenches of which you speak. This is doubtless an excellent way of examining the construction of the wall from top to bottom, but your Committee do not feel that at the present stage of excavation the relative importance of this wall is such as to justify them in the expenditure of time and money necessary for such an examination as this. They would propose that when you have completed your present trench, as you doubtless will have done before this arrives, you should let it stand until the bricks become thoroughly dry and then make an examination of the bricks at certain selected points, provided, that is, that you have not already ascertained to your own satisfaction who the builders of the entire structure were. I am interested in what you say about the large inscribed burned brick found on Hill VIII. Bricks of a size somewhat larger than this were found in the corridors to the southwest of the Temple in the first year, forming a pavement at one point. Unfortunately none of these bricks were preserved, because we were so occupied in the preservation of tablets and vases and the like that it did not occur to us that it was important to preserve objects of another character. I hope that you are taking pains to preserve specimens like this brick of which you speak and other objects in stone and clay which we discarded in the first year. I remember that you were always urging me in the first and second year to throw away things on account of the difficulty which we should have in the transport. Having this recollection in mind I am all the more anxious to impress upon you as a consequence of my later experience and as the result of studying collections of Museums and our own collections, the desirability of preserving practically everything. I have urged upon you in previous letters the careful collection of fragments of glass. I should like to hear from you whether you have made any such collection. I think I told you that such collections were now being made at the large Museums with the result of quite revolutionizing our ideas as to glass. Glass fragments should be picked up from the surface of the mound and carefully preserved when picked out in the excavations. A collection of several thousand pieces ought to be made; similarly a very large collection of potsherds should be made; pieces of stone, flint, stone implements and the like should be gathered. And by the way, the object which I found at the greatest depth was a jade axehead found under the ziggurat, north of the western corner, at the bottom of the deepest trench. It is a beautiful piece. I had hoped that in your deep trenches in the Temple mound, you might have found other stone implements; there has been no mention of anything of the sort.

With regard to the coffins which you mention as found in VIII, two of the forms, B and C, were rare in our finds of the first and second year. The only specimen of B which I recollect without consulting my notes, was found by Muhawis near the surface in a corridor west of the north

corner of the Temple. Examples of coffin C, of the bathtub shape were found on the north side of Hill V. Unfortunately none of any of these specimens was in a condition to be preserved, nor could they be brought out whole. The Committee are very much pleased that you have succeeded in preserving such a number of coffins and commend highly your skill in that work. The finding of the jars at the head of the coffins containing the objects which you mention is interesting. Several jars not containing quite such rich "finds" were unearthed, in connection with the coffins in Hill V, the first year. Sometimes these jars were in the coffins, but in several cases jars containing objects of various sorts were placed at the heads of the coffins. It is to be regretted that you have sent no squeezes or impressions of the seal cylinder and the scarabaei found in these jars. It is of very great importance that these should be studied by experts for the determination of date. In determining the date of cities in the various strata at tel-el-hesy, the scarabaei found were of the first importance. You should be more careful to send impressions of such objects at once; there is then no danger of possible confusion and you yourself can be informed promptly from this side what bearing inscribed objects have upon the determination of the date of your other finds. The Committee wish you to note this point carefully and see that in future the greatest pains are taken to send impressions of such objects if possible with the letter describing your find, if not as soon afterwards as possible. You describe M as a "Carnelian showing a headless human figure in a sitting posture". I do not understand quite what you mean. Do you mean merely that it is a carnelian stone in the shape of a little figure, or is there any evidence about it of the original purposes for which it was used. To judge from Mr. Meyer's drawings the small vase is of very beautiful form and excellent workmanship, as you say. It is to be hoped that you are making a good collection of pottery. If we could date a few such vases by means of seal cylinders, scarabaei, or other objects found in connection with them, it would give us a clue by which to unravel the mazes of Babylonian pottery about which we really at present know nothing. Please observe the greatest care in making your pottery collection to endeavor to note any objects which may throw light on the date on some of the vases. If you have preserved these three large jars and the tear vase and will send on at once impressions of the scarabaei and of the seal cylinder, we may from this side forthwith furnish you a clue. Your experience with the woven fragments is exactly the same as mine was. With regard to the brooch like objects which you determine to be ear-rings, I would say that they are one of the more ornamental but at the same time most common forms of ear rings found by us in the first and second year, sometimes in copper but more frequently in silver. I wish that you could have had a clue to the date of the two beautiful blue glass bottles. Judging from Mr. Meyer's drawing and your description, they are of the same general manufacture as several which I discovered on the Temple Hill. These were in all cases comparatively near the surface, standing loose in the earth, without objects about them to enable us to determine more closely the date. Almost all the better glass bottles which we carried to Constantinople were broken after arrival there by carelessness of the employees of the Museum.

With regard to the drain, the Committee would like very much to obtain several collections of this drain both perforated and unperforated. They scarcely think that it is desirable to transport the whole drain with a view to setting it up in the Museum, but they would like to have a sufficient number of sections both perforated and unperforated removed to make it probable that the Constantinople authorities will grant them enough for study and exhibition. I am interested in what you say about the several donkey loads of tablets from Tello. If they really have found tablets in any number at Tello it is an entirely new thing. My experience with regard to pearls was the same

as yours. Almost no pearls were preserved at all and those had turned into a sort of chalk. In most cases there was merely evidence that a pearl had been the ornament.

Before this reaches you Prof. Hilprecht will have left Constantinople on his way back to America. He writes that he has classified this year nearly 8000 tablets and fragments of Nippur objects. He adds that about 5000 of all the tablets are Cassite or Kassaeen (*sic*). There were, however, as I wrote you in my last some very excellent late tablets of the Persian period and we have in our Museum some tablets of a very early period. Those of the very early period were found chiefly in the Temple hill and at X. Those of the Persian period were found mostly on Hill V. All tablets found on the old camp hill up to the present date are Kossaeen. In conclusion, while commending very highly the work which you have done and congratulating ourselves upon the acquisition of Mr. Meyer, the Committee wish to express to you their disappointment at your apparent failure to make use of Photography. The Committee desire you to present in your next letter after the receipt of this, if possible, a statement of what you have done in the line of photography, inasmuch as it seems to them that the money spent for this purpose has not been properly used. They wish to know whether your photographing outfit is now in condition or not, and they wish to know where the negatives are of all such exposures as you have made.

I regret very much to hear that the heat has been so trying and that you have suffered from prickly heat and trust to hear better accounts in this regard in your next.

Do you mean to insinuate in your letter of the 15th, that Daniel Noorian is in correspondence with Obeid Mullah Kahdim and that he is endeavoring in that correspondence to do an injury to the expedition? I think such a suspicion is both unjust and unfounded, but your letter seems calculated to make such an insinuation. If you have any facts on which to base such a charge I should be very glad to have them, otherwise I think you should be careful not to make such an insinuation. While feeling that Daniel did not act as he should have acted in the past, I think that some of the things that you accused him of, you accused him of without any ground whatsoever, as was shown when you undertook to state the things in form. Now my impression is, though I have not seen Daniel or heard of him except in the most indirect way, that he is honestly and faithfully getting his living and doing his work and supporting and educating his brothers and sisters in Newark and that he has nothing under the sun to do with the expedition and has not bothered his head about it.

Yours very truly,

(Signed) John P. Peters.

1894-11-17. Haynes to Haji Hassan Pasha. UPMAA\_Nippur\_05.02, 117-118. HO

Niffer, 17<sup>th</sup> November, 1894.

To

His Excellency

Haji Hassan Pasha

Governor-general of the Vilayet of Baghdad.

Dear Sir:

In reply to your Excellency's esteemed favor of the fifth instant I am happy to assure your Excellency that I will do all that lies within my power to make comfortable the newly appointed Commissioner to Niffer

I regret to say that my companion, Mr. Meyer, is seriously ill of a complaint that makes it unpleasant for anyone to dwell within the house at the present time.

I hope these unpleasant conditions will soon pass away, and that I shall have the pleasure of putting at the disposal of Mahmoud Effendi a room before the approaching winter shall make it uncomfortable for him to lie under canvas.

With renewed assurances of my high esteem for your Excellency

I have the honor to remain

Your most humble and obedient Servant

John Henry Haynes

Director of Expedition to Niffer

1894-11-27. Peters to Haynes. UPMAA\_Nippur\_02.09, 98-104. TC

302 West 103rd St., New York,

November 27th, 1894.

Mr. J. H. Haynes,

Care Blockey, Hotz & Co., Baghdad, Turkey.

My Dear Mr. Haynes:

Yours of the 22nd and the 29th (*of September*) received yesterday. I wish to express my thanks for the care with which you have lately carried out the plan of writing a weekly letter, even where the letter could not be sent off at once. It has enabled us to obtain a very much better idea of the method and results of your work and has given us an assurance of systematic and diligent exploration. To take up first the letter of 22nd;

I note with interest what you say at the beginning as to the manner in which your explorations were at that time carried forward on the stages and terraces of the ziggurat of Ur Gur. You will have learned from my last to you the wishes of the Committee with reference to the exploration of this ancient and most important work. They desire to have the ziggurat explored from top to bottom, and are anxious to have the whole temple ultimately thoroughly explored, they wish at the same time to have excavations conducted for the purpose of securing tablets or other objects from various parts of the mounds, and particularly they wish to have hill X thoroughly examined as being the spot at which in the past the most numerous and valuable tablets have been found. They therefore approved of your plan of continuing excavations at the temple with a small gang while the main body of the men were engaged in excavations for tablets. This is the method you were pursuing at the date of the first of these letters, September 22nd, and is the method which has met with the approval of the Committee. I do not think that the Committee would have any objection to your increasing the force at work in the excavation of the temple so that perhaps 1/3, or even, possibly if it seemed desirable, 1/2 of your entire force should be at work there, the remainder being employed in excavations for the obtaining of tablets, but I do not think the Committee will approve of that which you speak of in the letter of September 29th, the placing of the whole force again on the excavations on the constructions of the temple. Your letters will go on to the other members of the Committee together with this letter of mine and they will doubtless speak for themselves. I congratulate you heartily on the admirable results you have achieved in the exploration of the ziggurat and wish to see you carry this work to completion. I do not think that it is necessary in order to do this that you should abandon the search for tablets in other directions, more particularly as the Committee has decided to continue the work and continue you in the field, if you feel equal to the physical strain of continuing. Hamdy Bey writes me, by the way, in a letter received last night, that the application for the extension of the firman for two years is in train, and I presume that it has been actually granted ere this. It would be, as you say, a great pity, having unearthed so much of the old temple, to leave it incomplete, certain to be soon utterly destroyed by the elements; ruined for further exploration, therefore, and yet not thoroughly explored by us. I had not quite understood what you had written with regard to the temple in some of your last letters and had not appreciated

that while the lower part of the ziggurat of Ur Gur had been thoroughly explored, the upper portion was still in part unknown. You speak as though you had some indications with reference to approaches, peculiarities of construction etc., but as you do not mention them, it is, of course, impossible for us yet to form any judgement of the necessity of the work that you are doing in laying bare every portion of the upper stages and terraces, nor of the value of your results. We must wait for further letters to justify your action in deciding upon a complete excavation of those parts of the ziggurat. I well understand that the work is enormous and am filled with apprehension when I consider what it means to remove that immense mass of crude brick; the necessity of such work you who are in the field must determine. The criticisms of the Committee at a distance in such a matter are very much more apt to be a hindrance than a help, and the best that a Committee can do under such circumstances is to trust its director, but beg him to put them out of suspense as quickly as possible by such detailed statements as shall convince them that his method of work is the proper one and the work done both necessary and valuable. I wrote you in my last from the Committee their opinion of the work which you were doing in excavating at VIII and VI. It is not necessary to repeat here what was said then, as of course, you had not received that letter before yours of the 22nd and 29th of September were written.

You mention the discovery of a few small fragments of unbaked tablets at VIII. I wish that you had mentioned in what stratum they were found, and told us something of the general character of the tablets. You probably could not at that time have photographed them and certainly could not have furnished anything like a squeeze. It is desirable, where possible, especially where you yourself do not know the date of an object, to send a photograph, squeeze, rubbing or drawing of that object to the Committee as speedily as possible. There are certain marked features of tablets which if once observed will enable you without knowing a character upon those tablets yet to determine at a glance to what period they belong within certain limits. If you could send us promptly descriptions of these tablets, photographs or whatever else may be possible, the information which would be sent back to you would enable you very shortly to determine for yourself what the bearing of a tablet was on the general dating of surrounding objects. We do not, of course, wish you to handle the tablets before they are thoroughly dry and if practicable they should not be packed for some months after finding. As noted before, it was in Hill VIII, on the other side of it, towards the Shatt-en-hil [*sic*], that we found the valuable Assyrian tablets of Ashur-bani-pal and his son Ashur-etil-ilani. Outside of this we found on that hill only a few fragments, if I remember rightly without consulting my memoranda from beginning to end, of unimportant tablets of a late Babylonian period, which were found in the upper strata. The small shrine which you have unearthed in VI is of very great interest. I am not at the present able to make any very definite suggestions with regard to its origin, but this I would say, that the existence of a dome building of this sort is in no way suggestive of Persian origin. The dome is native to Babylonia and ante-dates by very many centuries the Persian conquest. Indeed, while we may not be in a condition yet to make very definite statements as to archaeological precedence in such matters, the presumption certainly is that that method of construction moved from Babylonia towards Persia rather than vice versa. We do not know as much as I hope that we some day shall with regards to the methods of worship of the Persian fire-worshippers of the earlier period and the Parthians who followed the Greeks in possession of the soil of Babylonia. It is easy to refer things to either of these periods, inasmuch as we have few data by means of which to negative such reference. I am not, therefore, prepared to say that this little shrine is not Persian or that it may not have been even Parthian, or for that matter Sassanian (*sic*),

but I am very much inclined to think that it was none of all these, but Babylonian, the orientation of which you speak being distinctly the Babylonian Orientation, the northern point being in this shrine  $12^{\circ}$  E. of N., the same, if my memoranda are correct, as in the great temple. The altar also stands in the same relative position, viz: at the middle of the southeastern side. The bearing of what you say with reference to the type of bricks of which this little shrine was composed must of course be apparent to you. The cruciform construction superimposed upon the ancient ziggurat of the temple of Bel must belong to the same period as this shrine, if your observations with reference to the material of the shrine are accurate. From what you had written about that cruciform structure I had been inclined to suppose that we had then something of late Babylonian date. If so, we should refer this shrine to the same period. I do not understand from your letter whether the objects found near the shrine stand in any necessary connection with it. You do not state exactly where they were found. I should hope that a further examination of the shrine itself or its immediate surroundings might result in giving us some more precise indication of date. I should scarcely think from the size of the shrine and from what we know of the methods of temple worship that a congregation was ever assembled inside the building, and therefore I do not think that the difference in the level of the floor was for the purpose you suggest. I think that you will find that such congregation as there was gathered to the southeast outside of this shrine at the time of sacrifices. You do not state how you know that the building was covered by a dome of bricks laid in lime mortar. The Point is of so much interest that I wish that you would state precisely what is the evidence. Have you found any section of the dome, if so how large a section? Have you found anything to indicate whether or not there was any hole in the centre of this dome? What you say about the ashes on and around the altar is very curious and interesting. It is strange that the upper portion of the altar itself has vanished. I wish that the upper layer of brick had been found in place so that we could have given in detail an exhibit of the method of construction of an altar. Were the bricks at the centre burned or charred. Was there any evidence of a hole in the centre of the upper layer resembling that lime stone mould which has come in so providentially to show what this altar was? You speak of the discovery of a bronze vessel at the southeastern end of mound VI. It was in trenches at this point that one and probably two of the brick stamps of Naram Sin were found, and also here is supposed to have been found the ancient stone list which is published by Hilprecht in the first volume of our inscriptions. This is the only part of hill VI that ever yielded us anything whatsoever. Taking up in order what you say, I do not need to speak about the disposition of the property of the expedition, as the information contained in our last letter to you covered completely that point. I am very glad to hear that you have succeeded so well in the preservation and the preparation for export of coffins, and that you have obtained not merely coffins of one sort but of several. The exhibit of these objects must prove most interesting and valuable. They may not be intrinsically as important as tablets but for Museum purposes and for instruction of the general public they certainly are of the greatest value. I have urged upon you already the collection of everything and consequently the collection of as many of these coffins as possible, and therefore I do not need to answer further what you say in this matter. You are already assured that the Committee are with you. I am inclined to think that if you can restore that altar satisfactorily it might not be amiss to transport that as de Sarsec transported one of the pilasters from Tello. The information contained in yours of the 29th of the transfer of the whole force of laborers to the temple hill has already been commented upon. You note the purchase of a smaller bowl which bears within an inscription in Hebrew.

According to Mr. Meyer's sketch it is different from any inscribed bowl which we have hitherto obtained. If you were using photography I should say that all Hebrew bowls should be photographed, but those photographs should be made with a view of obtaining a legible reproduction of the inscription. One photograph of a bowl will probably not do this; certainly not if the bowl is large. Two or even three photographs are necessary to reproduce legibly the inscription of a bowl. The Committee has already written you with reference to the question of photographing it is, therefore, scarcely necessary to call attention again to the fact that you sent no photographs with your letter.

I presume that we shall shortly hear some account of the matter of photographing and some explanation, I trust a satisfactory one, of your failure to make use of it. You speak of the place where the inscribed stone objects were found in the temple as a large open court. I should be interested to know exactly the evidence you have for this. How far to the southeast from the ziggurat have you conducted your excavations or laid tunnels? The door sockets of Sargon and the numerous inscribed vases and fragments of Ur Mush were found, or at least the greater part of them, were found near the wall before the ziggurat. One of the door sockets were found considerably to the north of the great excavation. The idea of an original open court which lay to the southeast of the ziggurat and probably also to the northeast and southwest, is one that commends itself to me in theory; it is what I should expect to have been the case, but as far as my explorations went the evidence was in favor of a very small court about the ziggurat with buildings covering the rest of the space within the great wall. It was among these buildings that the remains of the vases and the door sockets were found, and not, apparently, in a court. There were found also to the southeast of the ziggurat, but nearer to the ziggurat than the objects of which I have spoken, about a dozen or so of very beautiful clay tablets of an early date which have not yet been photographed. So far as I know there is nothing quite like them in the matter of writing anywhere in the museums of the world. I sank wells, and trenches much larger than wells, to a very low level in various parts of the temple, usually without finding anything whatsoever. I have always been inclined to think that somewhere or other there must be an abundance of inscribed objects in that temple area, but, so far as the experience derived from our trenches went, the only promising place for finding these objects was to the southeast of the ziggurat. It was the discovery of objects there by the sinking of trenches which led to the great excavations. I should be I should be (*sic*) very much pleased to hear what evidence there is as to the existence of a large court on that side of the temple and how far you think that court to have extended. I could not determine satisfactorily the age of the great outer wall. Have you any clue to its date? If it could be done at some time without interfering with other work which is in progress, I should think it might be well to make another attempt at some other part of the temple to dig down to the oldest ruins and see whether you could find any objects there. I would like to know what good reason there is for believing that "the lower strata of the temple enclosure toward the northeast and north of the great ziggurat would yield to the patient explorer larger results both in smaller objects and earlier buildings on the lower levels". Is this a mere theory which you have formed, or have you any facts on which to base it? You have not in your letters stated anything which would justify such a theory. This was my own view originally and I was very much disappointed that as the result of my searches to the northeast and north of the ziggurat, where I carried trenches down to the lowest level, I found absolutely nothing. As I have already stated the only place of promise which was found by the sinking of wells and the running of small deep trenches was the section to the southeast of the ziggurat. I should think it very desirable



if horse-power could be applied in the excavations at Nippur to make arrangements to apply it. In a period of one or two years that ought to save a great deal of money. I did not think that anything of the sort could be done satisfactorily, but I should be very glad to learn that I was mistaken and that the expense of labor at Nippur could be reduced.

You will deserve high commendation if you could develop an ingenuity sufficient to overcome the obstacles. You say that "at different times and in different places, but always above the great platform on which Ur Gur placed the foundations of his temple, have hitherto been found several brick stamps and door sockets of King Sargon". Your levels have not been stated fully in your letters but I had not gathered from those letters that you had carried out the excavations over the area to the southeast to so great a depth in general that this would indicate. I had supposed from your descriptions that the level of the Ur Gur platform was above the level at which the Sargon door sockets were found. Will you kindly give the level of the Ur Gur platform?

Your figures have all been given in feet and inches.

It is certainly a convenience to see them in this shape for ordinary American readers, but I trust that you have noted them first and foremost always in metres and the fraction of metres, and I should be much obliged, if it is not too great a difficulty to give both, to have the measures also in metres and centimetres, etc., for purposes of comparison. All scientific work of the present day of every description in archaeology uses these measures; all our earlier work was done in these measures, and it must, therefore, be a matter of great annoyance if everything has to for purposes of comparison translated from one system into the other. The Committee would be obliged, therefore, if you would see to it that your measures are carefully taken and recorded always in metres, centimetres, etc. If you have the time in your letters to the Committee to state in feet and inches what the various measures are, it of course helps us who are used in the ordinary affairs of life to the use of feet and inches to grasp quickly the general size of excavations, trenches, etc. Please observe, however, the very great importance of the other measures.

I am glad to hear that the health of the camp continues good. Ere now doubtless the temperature with you has become lower and it is a relief to me to know that you are living in a better atmosphere. We must always be anxious about you during the summer months. During the winter we regard the conditions of health as far more favorable, and our anxiety, if it does not altogether disappear, is at least greatly diminished.

Permit me once more to commend the promptness with which your weekly letters are now dispatched, and to extend through you our most hearty thanks for Mr. Meyer for the admirable work which he does in illustration, which enables us to understand as never before the character of the excavations and the character of the objects found.

Yours very truly,

(Signed) John P. Peters.

1894-12-14. Peters to Haynes. UPMAA\_Nippur\_02.10, 38-42. L-109. TO

St. Michael's Church,  
225 West 99th Street,

New York, Dec. 14th 1894

My dear Mr. Haynes

Yours of 6th Oct. to hand, and I am delighted to hear that you are at work at the building below Ur-Gur's ziggurat. I was distressed by the news of Mr. Meyer's illness, and am waiting anxiously for your next.

I have no need to add anything at present to what I have already written you from the Committee respecting their wishes in regard to the excavations, and will therefore confine myself to the question of your finds. The rubbing of a fragment of a small disc of lapis lazuli containing an inscription of Nazi-Maruttash I forwarded at once to Dr. Hilprecht, who reports that it is identical with one of the inscriptions which we already have, and I may add to his report that the inscription to which he refers was found in the chamber next but one east of the opening in the low outer mound line to the southeast of the Temple. As this was found, according to your statement, mixed in with the mud mortar which joined together the large, crude bricks in the eastern corner of the second stage of the ziggurat, it is clear that that structure of large, crude bricks was later than the time of the Cossaeon dynasty, or at least than Nazi-Maruttash of that dynasty. Unfortunately your description does not make it clear whether this structure was the ziggurat which you have identified as Ur-Gur's, or a later construction built over that. If the latter, was it the construction to which the so-called buttresses, giving the cruciform appearance, belong? Please make this point clear by return mail, so that we may follow you the better.

The squeeze of the clay cylinder which you sent proved illegible, as you supposed it would, but Dr. Hilprecht thinks that the characters resemble those of Esarhaddon inscriptions. If his supposition is correct, you have an indication of date for the structure over which it was found, namely the construction of large, crude bricks, that it was earlier than the time of Esarhaddon. Of course this is no more than an indication. In the first place, Hilprecht is not certain of date and only conjectures. In the second place it is always possible that an object may occur out of its stratum. This cylinder, for instance, might have been preserved in some manner, and been handed down intact to a later period, to go to pieces at last with the material of a much later age. The indications, however, are, as I have said, that the construction of large, crude bricks belonged to a period earlier than Esarhaddon. Now, as you have not made clear what this construction of large crude bricks is, although I imagine you must mean the construction to which the so-called buttresses belong, it is impossible for us here to appreciate correctly the value of this indication. Esarhaddon, you will observe, is three quarters of a century earlier than the late Babylonian period, to which you are inclined to refer the buttresses.

With regard to the other objects found in this locality, that is about or above the ziggurat construction, your description of locality is not sufficiently exact to make clear to my mind their relation to the construction. The golden plated copper nail may possibly have been a mere ex voto, thrust into the wall in the same way in which stone or pottery phalli were thrust in. On the other hand it may indicate a structure standing on the ziggurat in which wood was used. According to Herodotos' description of the temple of Bel at Babylon there was on top of the ziggurat a small shrine, the holy of holies of the temple, with walls and a roof. In this shrine gold was lavishly used. This may well have belonged to such a building as that shrine, where the wood and also the nails were covered over with gold leaf, after the manner of ornamentation so common in oriental shrines and temples of old and to this day. "Near the northern corner in the second stage", is a very vague statement, as is also the statement "on the northwest side and in the second stage", where you say a gold bead was found. The positions of the "fragment of green glazed pottery" and the fragment of red pottery which "seems to show a decided Greek influence" are not stated at all, excepting that it is said that the former was not on the surface. I wish to call your attention to the fact that we found a very fine piece of pottery which we supposed to be of the Seleucian period, made under the influence of and in imitation of Greek art, in the plateau to the southeast of the ziggurat about the middle of the same, where the great trench now is, about fifteen feet below the surface, and in the neighborhood of objects which dated back to about fourteen hundred B. C. We also found a number of little heads of Greek art, or made under the influence of Greek art, and some of a fairly good character, at various places on the temple hill. When and how did they come there? I am beginning to suspect that we must place the first influences of Greek art in Babylonia a little earlier than has generally been supposed. In connection with this let me call your attention to the fact that we found proof of commercial relations direct or indirect between Nippur and the island of Euboea in the fourteenth pre-Christian century in the objects discovered in that chamber, already referred to, in the line of mounds to the southeast of the temple. Please give us by return mail precise and clear statements as to the position and relation of these objects.

Your discovery of a part of a brickstamp of King Sargon below the brick platform on which Ur-Gur built is interesting. I have already asked for proof of your statement that all brickstamps and door-sockets of Sargon previously found had been found above the platform, and therefore do not need to go into that matter again here. The discovery of the water vents at that low level, fixing definitely their very early date is exceedingly interesting. I am looking forward with the greatest interest to your next letter.

Long ere this reaches you you will have received the cable to continue your work, and also a letter to that effect; also a letter about securing a continuance of Mr. Meyer's services; also a memorandum, drawn up by Prof. Hilprecht, regarding the form and nature of a brief monthly report to Hamdy Bey, which I had supposed your commissioner was sending, and which he certainly ought to have been sending; also the statement that the Museum has been even more liberal with us than before, but that nothing is to be said about this outside of yourself and Mr. Meyer, who need it for your encouragement and instruction.

The two drawings of the pottery were interesting, although I can not say that there was anything new. The group of pottery from the bath tub shaped coffin in mound VIII should be kept carefully together as an exhibit.

I am sorry to see still no evidence of the use of photography, but suppose that we shall shortly receive your report on that matter in accordance with the instructions of the committee.

Congratulating you on what you have done, and on the decision to continue you in the field, and begging that you will express to Mr. Meyer my sincere regret at hearing of his illness, I am

Yours very truly

*signed* John P. Peters.

1895-01-22. Peters to Haynes. UPMAA\_Nippur\_02.11, 29-30. L-1320. TC

ST. MICHAEL'S CHURCH.  
225 W. 99th St.

New York, January 22, 1895

Mr. J. H. Haynes,  
c/o Blockey, Hotz & Co.,  
Baghdad, Turkey.

My Dear Mr. Haynes:

Yours of November 10th arrived yesterday. Dr. Pepper had received some ten days sooner a letter from Dr. Sundberg, from Baghdad, dated December 5th, through which we were informed of Mr. Meyer's safe arrival at Baghdad, and his condition, in Dr. Sundberg's judgment; and Dr. Sundberg's intention to depart with him for Europe forthwith.

I read your letter with the greatest sympathy for the serious trouble and distress of mind through which you have passed alone, so far from all assistance, under the ordinarily trying conditions in which you live, to have had upon your mind the burden of a sick comrad, possibly dying, certainly in a nervous condition of mind which was calculated to upset and distress the most phlegmatic - - I do not wonder that you are worn down, desponded, and even morbid.

I am writing by this same mail to Philadelphia, advising that the Committee arrange for you an immediate furlough, if that can be called immediate, news of which will reach you so long hence. I do not feel like writing to you much about business or work, for all my thought at the present moment is for your condition, and what can be done to help you to regain tone.

Do not have any idea in your mind that any one has theories of any very pronounced character with regard to the details of the temple construction, or that you must labor to bring very positive proof to prevent the formation of unnatural hypotheses. Mr. Meyer's drawings are so effective there is no necessity of going to expense to secure a photograph where he has already drawn the object. It is desirable to photograph everything that can be photographed, but I would not spend money or labor in removing any large mass of earth for the sake of securing photographs of that which Mr. Meyer has already drawn. If the earth must be removed for other purposes, well and good, but do not remove it solely for the purpose of photography. There are no foes to be convinced.

I am rejoiced to hear of the discovery of the unbaked tablets to the northwest of the Ziggurat, near its western corner. The general position at which you found them is made clear by your description. I had no clue, from objects found, to the date of that stratum, in the work which I did there. You have a terminus a quo in that they were found about the Ur-Gur platform and therefore must be later than the time of Ur-Gur, but you do not indicate the discovery of anything that would

give a terminus ad quem. That the tablets will do, of course, when they are taken out. I note that you are packing the tablets at once, after discovery. I think from experience with the tablets which were packed in various ways, that that is a mistake. The tablets, even when of the hardest burned clay should be kept out and so far separate that the air can circulate freely about them for the purpose of drying them. Before packing them they should be thoroughly dried, and quite a long time may well elapse before they are put in their boxes. I know that it is not always the easiest thing to manage this. With regard to packing, one thing more: Prof. Hilprecht informs me that there was no mark of the situation in which things were found in the boxes unpacked in Constantinople, except the numbering. It would be desirable to forward a catalogue, or your note book, or something to us at the same time that the boxes go forward to Constantinople, so that when they are opened, and before opportunity of confusion arises, they may be examined with a view to the consideration of the various objects in connection with their locality. A slip of paper with such a collection as this, saying that it was found at such and such a place at such and such a depth, would be of great value and would insure in the unpacking the handling of this collection as a whole, and keeping it together. Possibly after this letter arrives you may be in a condition to photograph some of these tablets and send them on. The find of tablets on the temple hill, and particularly so close to the Ziggurat, is of such importance that we should endeavor to ascertain speedily everything that it is possible to ascertain regarding it. Therefore, photograph some of these, if you can, and send back the photographs telling what they are.

I will not go into business any further, and feel almost as though I should not have said this. I wish to congratulate you on the courage and persistence with which you have remained at your post, and to assure you of my hearty sympathy and warm friendship for you, and of all of us here on this side; that you have no foes; none but friends; that all trust you, and that all are anxious for your welfare, and exceedingly distressed and alarmed about you at the present moment. May God bless and preserve you from all sickness and danger.

Yours sincerely,  
*(no signature)*

1895-03-23. Haynes, *Description of Antiquities in their Cases*. UPMAA\_Nippur\_04.02, 97-100 (HO) and HSN 181(TC), the latter with Hilprecht's annotations. Enclosed with report to Peters of the above date. Cf. 1894-00-00, Box labels; Hilprecht 1897-09-00.

Description of Antiquities in their Cases.

+	Case N <sup>o</sup>	<u>1.</u>	contains	Pottery, 1 Sargon brickstamp, Bronz Nails, 2 Water Vents, Cones, Discs, Rings, etc. of clay.	
+	"	"	<u>2.</u>	"	Pottery, Cylinders, Scarabs. Bronz Rings, Bracelets + Pendants, Stone Beads, etc.
+	"	"	<u>3.</u>	"	Pottery – Bowls, Vases, Pitchers + 1 cover for vase.
+	"	"	<u>4.</u>	"	Pottery – miscellaneous – 18 pieces –
+	"	"	<u>5.</u>	"	Pottery - " - 14 " - 1 enameled vase
+	"	"	<u>6.</u>	"	Pottery, 2 Leaves + 1 Tube Gold, 1 Gem, 2 Strings Beads, 2 broken models of Boats
+	"	"	<u>7.</u>	"	Pottery, 1 Bronz smelting Pot, 1 Bronz Bowl.
+	"	"	<u>8.</u>	"	Cover of Sarcophagus in several Pieces. 2 Fragments of Green glazed Coffin.
+	"	"	<u>9.</u>	"	Fragments of Green glazed Coffins showing female figures.
+	"	"	<u>10.</u>	"	Pottery, 4 Glass Bottles, Fragments Bottles, Samples of Mortar from Ziggurat.
—	"	"	<u>11.</u>	"	Purchased Articles, 1 Gold Bead, 1 Gold headed Nail, 16 Stone Hammer Heads, etc.
#	"	"	<u>12.</u>	"	Tablets from Ziggurat for which See next Sheet

↓

	Description of Case	Sound Tablets.	Imperfect Tablets.	Fragmentary Tablets.	Whole Discs.	Broken Discs.	Total
Case N <sup>o</sup> 12 contains	Regular size	6		104			110
" " 13 "	" "			143			143
" " 14 "	" "			209			209
" " 15 "	" "			250			250
" " 16 "	" "			177			177
" " 17 "	" "			208			208
" " 18 "	" "			200			200
" " 19 "	" "			138			138
" " 20 "	" "			240			240
" " 21 "	" "	44		55			99
" " 22 "	" "			20*			20*
" " 23 "	" "			140			140
" " 24 "	Double size						
" " 25 "	Regular size			124			124
" " 26 "	" "	11	4	70	2		87
" " 27 "	" "			207			207
" " 28 "	" "			118			118
" " 29 "	" "	58	41				99
" " 30 "	" "			104			104
" " 31 "	" "			87			87
" " 32 "	" "	473	10				483
" " 33 "	" "			84			84
" " 34 "	" "			115			115
" " 35 "	" "			81			81
" " 36 "	" "			191			191
Total		592	55	3065	2		3714

*\*Haynes clearly wrote 20 in both places. Hilprecht corrected both to 200 in his copy of the list HSN 181.*





	Description of Case.	Sound Tablets.	Imperfect Tablets.	Fragmentary Tablets.	Whole Discs.	Broken Discs.	Total
	Case N° 37 contains	Regular size		153			153
—	" " 38 "	" "		109			109
	" " 39 "	" "		86			86
	" " 40 "	" "		123			123
—	" " 41 "	" "		97			97
—	" " 42 "	" "		104			104
—	" " 43 "	" "		115			115
+	" " 44 "	" "	2	25	33	6	66
?	" " 45 "	" "	10	58 Charms			68
—	" " 46 "	" "		91			91
—	" " 47 "	" "		100			100
—	" " 48 "	" "		97			97
—	" " 49 "	" "		60			60
—	" " 50 "	" "		141			141
+	" " 51 "	" "	3 jar covers	142			142
	" " 52 "	" "		196			196
H +	" " 53 "	" "	106	40	2		148
H +	" " 54 "	" "	145	34			179
+	" " 55 "	" "	1 grosser jar cover	66			66
<u>must have this!</u> +	×" " 56 "	Double size	75	63	4 Prisms		142
H +	" " 57 "	" "	17	126			143
—	×" " 58 "	" "	266	68			334
—	" " 59 "	" "	65	296			361
	" " 60 "	Regular size		87			87
	58 inscribed Charms, 4 Prisms		1278	80	5492	10	6922

↓

	Description of Case.	Sound Tablets.	Imperfect Tablets.	Fragmentary Tablets.	Whole Discs.	Broken Discs.	Total
—	Case N <sup>o</sup> 61 contains	Regular size		93			93
—	" " 62 "	" "		133			133
—	" " 63 "	" "		63			63
—	" " 64 "	" "		161			161
—	" " 65 "	" "		142			142
—	" " 66 "	" "		130			130
—	" " 67 "	" "		111			111
—	" " 68 "	" "		107			107
—	" " 69 "	" "		135			135
—	" " 70 "	" "		123			123
—	" " 71 "	" "		105			105
o—	" " 72 "	" "		142			142
o—	" " 73 "	" "		119			119
o—	" " 74 "	" "		128			128
o—	" " 75 "	" "		84			84
H +	" " 76 "	" "	22	205			227
H +	×" " 77 "	" "	172	62			234
H +	" " 78 "	" "	47	287			334
H +	×" " 79 "	" "		223	87		310
—W	×" " 80 "	" "	17	180			197
	58 Charms, 4 Prisms		1536	303	8089	10	10000



Double  
Match  
Box

Articles from Grave 339  
2 Bronz Rings with finger bone  
1 Scarab  
2 Simple Cylinders  
1 Seal  
Several Stone Beads

Match  
Box

2 Cylinders  
2 Seals  
1 Bronz Cross  
1 Gold Ear Ring  
1 Flat square cornered Bead (nice)

Match  
Box

1 Seal Impression in clay  
2 Silver Beads  
1 Disc from Ur Gur level  
Tiny fragment of inscribed Lapis Lazuli Disc

Pkge

15 ellipsoidal Weights & Frags.  
1 Small Duck Weight

Pkge

4 ellipsoidal Weights  
1 Frag. of inscribed Lapis Lazuli Disc

Pkge

2 Pieces Agate

Pkge

9 ellipsoidal Weights

Large  
Square  
Tin

Tapioca  
Tin

Pkge { 9 Bronz Coins  
9 Silver Beads  
1 Talisman

Pkge { 1 Clay Sphere  
1 Disc  
Several Whorls


Fragmentary Tablet reported Nov. 16 (CBS 13150)

1 Tablet " " 30 (CBS 13147)

2 " " Dec 14. ("CBS 13145" and "13146")

Large Metal Pin with head of Lapis Lazuli

1 Ivory Stiletto

1 Iron thus  1 Iron Finger Ring

1 Lamp. 2 Grinding Stones. 1 Large Needle.  
3 Pkges Stone & Paste Beads.

1 Head of Statuette

~~1 Mask of enamelled clay~~

Terra Cotta Steles of May 18. (*HS 68 = TMH 4, 68; CBS 15399 and 15400 = PBS 16, 207, 208*)

Sow & Pigs (*CBS 16679 = PBS 16, 309*)

Lion's Head

Spear Heads etc

Black Stone Tablet (*HS 1963 = BE I/2, 123*)

Clay Tablet over Jewish Grave May 11 (*CBS 10059*)

Frag. of Clay Tablet. Crude brick 9×6×3 *ill.*

2 handless Brickstamps of Sargon

6 Statuettes

1 Mould for Statuettes

1 Marble Crucible Alu Sharshid(?)

4 bevelled triangles (preUr Gur)

Bone Implement

1896-03-12. Lists of Antiquities. UPMAA\_12.02, 13-19. HC-47. HO

This document is also available in HSN 179 and 180, the latter with Hilprecht's penciled annotations. This edition includes these and is otherwise a conflated version of the three manuscripts. They vary slightly.

See also Haynes, report 1896-03-12; Hilprecht 1897-09-00.

Lists etc. of Antiquities packed in Boxes at Hillah March 12<sup>th</sup> 1896 (written by Haynes, the rest by an unknown hand)

A	Description Of Case:-	Sound Tablets:-	Imperfect Tablets:-	Fragmentary Tablets:-	Whole Discs:-	Broken discs:-	Total:-
Reported in letter of March 23 <sup>rd</sup> '95		1536	303	8089	10		10,000
Case No. 81 contains	Reg. size			133			133
" " 82 "	"			169			169
" " 83 "	"			158			158
/ " " 84 "	"	64		120			184
" " 85 "	"			106			106
" " 86 "	"			128			128
/ " " 87 "	"	46	24	101			171
/ " " 88 "	"	5		144			149
" " 89 "	"			198			198
" " 90 "	"			126			126
" " 91 "	"			104	6		110
" " 92 "	"			179			179
/ " " 93 "	"	71		38			109
/ " " 94 "	"	38		161			199
" " 95 "	"			120			120
" " 113 "	"			151			151
" " 114 "	"			140			140
" " 115 "	"			224			224
" " 116 "	"			157			157
/ " " 121 "	"	24		48			72
" " 122 "	"			80			80
" " 131 "	"			42			42


**B.**

Size

Contents

Case 96	Double	Beads : 26 cyl <sup>s</sup> : Bronze Bracelets : Bone & Bronze Rings : bits of gold &c.
97	Reg.	5 Bronze vessels, & a few frag <sup>s</sup> of do.
N 98	"	63 Terracotta figurines : 73 Tripods : 2 Brick-stamps of Sargon
99	Double	85 (circa) cards mounted articles: inscb <sup>d</sup> Vase Deity in niche : 2 seal cyl <sup>s</sup> {Lett. Feb. 1 <sup>st</sup> '96} : 3 Tear Vases : 1 thin glass bottle : 2 strings of Discs : a few small art <sup>s</sup> of pottery {on top}.
Y.		
Y. { 100	"	10 Bronze vessels {in small box} : 2 flattened enameled Vases : 2 Brick Stamps of Sargon : 3 or 4 frag <sup>s</sup> of Tablets 1 " " Naram-Sin : Clay impressions of Seals : 25 or 30 packages of grave-clothes, &c.
No		
Y. 101	"	Boundary Stone : layer of whorls.
no { 102	"	17 Watercocks
103	"	25 do.
Y 104	"	17 do.
No { 105	"	16 parcels broken pottery.
106	"	16 do. do.
107	"	19 do. do.
no { 108	"	1 impf. Brick Sargon : 1 green-edged Brick inscb <sup>d</sup> of Mili-Shihū : sev. frag <sup>s</sup> green-edged Bricks.
N { 109	"	16 packages broken glass
110	"	14 do do.
Y. 111	"	14 do do.
Y 112	"	{Private} purchased articles: Tablets : Alab. Vase : 1 Cup : 6 Hebrew Bowls : 1 Boat : 1 green bottle enam <sup>ld</sup> etc. etc.

C.

Case No. 117	Size.	Contents.
Yes	Double	<p>3 marble vases : 4 glass bottles within : Stone Tablet {Letter (<i>blank</i>)            Stele {Letter July 13<sup>th</sup> 1895} : 3 Baby<sup>m</sup> weights on card : Duck weight : Lamb            weight : 2 Jades, 4 ft below Naram-Sin level : Vase fragments in packages : 1            double tin {Jewelry {Letter Dec. 7<sup>th</sup> 1895} : 1 clay charm inscribed : 1 frag.            paste cylinder : miscellanies from crude brick 13×13×9};            1 Tin – 33 cylinders, 5 scarabs, 3 seals            1 Tin – 2 cylinders, 6 silver Rings, gold bead, silver bead, 4 strings stone beads :            {Letter Jan 4. 1896}.</p> <p>1 Tin – 2 gold Ear rings, gold bead, Stone beads, Bronze Ring, inscribed Disc,            insc<sup>d</sup> clay charm from grave 188, insc<sup>d</sup> Disc with 3 wedges {Lett. Sept. 21<sup>st</sup>            ‘95}, 2 Rude Scarabs &amp;c. &amp;c.</p> <p>Double match-box – Articles from grave 339, 2 Bronze Rings with finger-bone,            1 scarab, 2 simple cylinders, Seal, Stone beads;            Match-box – 2 cylinders, 2 seals, Bronze cross, gold Ear ring, 1 flat square bead            {nice}</p> <p>Match-box – Clay {seal}impression, 2 silver beads, 1 Disc from Ur-Gur level,            tiny frag. insc. lap. laz. Disc;</p> <p>Package – 15 ellipsoidal weights, &amp; frag<sup>s</sup>, 1 small Duck weight;            Do. – 4 do. do. , 1 frag. insc. lap. laz. Disc;            Do. – 2 pieces agate;            Do. – 9 ellipsoidal weights;</p> <p>Large sq<sup>te</sup> Package {9 Bronze Coins, 9 silver beads, 1 Talisman}            Tin Do. {1 clay sphere, 1 Disc, whorls};            Frag. Tablet {reported Nov. 16} : Large metal pin lap. laz. head;            1 Tablet { " " 30} : 1 Ivory stiletto : 1 lamp            2 " { " Dec. 14} : 1 Iron thus  : Iron Ring;            2 grinding stones : 1 large needle, 3 pckges stone &amp; paste Beads :</p> <p>1 Head of statuette : Terracotta steles of May 18 : Sow &amp; pigs : Lion’s Head :            Spear-heads &amp;c : Black stone Tablet : Clay Tablet over Jewish grave {May 11}            : Frag. of Clay Tablet crude brick {9×6×3 in} : 2 handleless Brick-stamps of            Sargon : 6 statuettes : 1 mould for statuettes : 1 marble crucible Alu-            usharshid{?} : 4 bevelled Triangles (pre Ur Gur) : Bone implement :</p>



D.



Size

Contents

Case No.	Size	Contents
no { 118	Double	Pottery – 2 delicate drinking cups;
no { 119	"	" – 1 nice vase, several lamps phalli on top.
yes { 120	"	37 cards of mounted objects: arrow-heads, bits of metal from low levels : 1 copper- nail {11 ft. below N. S. level} : Impression of seal cyl. {Jan 25 <sup>th</sup> } : 3 stone vases : 2 mace-heads : 2 perforated covers : frag. of clay cyl. : 2 incomplete figurines : 2 rude cyl <sup>drs</sup> : 1 Tablet : 1 insc <sup>d</sup> charm : 1 inscb <sup>d</sup> sphere : Lap. Laz. frag. : Goldsmith's forge : model of boat : tiny spoon : 3 vases : 6 Bowls (1 enameled) : 1 frag. Brick inscb <sup>d</sup> with stylus : 3 phalli : 2 fragments vases : Remnants of wood from low level.
yes { 123	Regular	3 skulls :
yes { 124	"	3 do.
yes { 125	"	3 do.
no { 126	"	3 do.
no { 127	"	3 do.
no { 128	"	Bones from various graves, and a few beads :
Y. 129	Double	1 water-cock : 1 impf. Bronze vessel : parcel red pottery : 1 parcel black-striped pottery : (nice) enamelled vases : Vases from low levels on Temple Hill :
yes 130	"	1 inscb <sup>d</sup> stone sacrificial list : 1 vase-cover in 3 pieces : 1 Mortar and Pestle {Nar. Sin level} : 10 <sup>?</sup> hollow-headed Phalli : 2 fragments of perforated covers.


E.

— : Contents: —

Case No.	1	1 gray ribbed sarcophagus :	containing 7 vases.
	2	1 blue enamelled " {female figs.} :	" 12 " .
	3	1 plain gray " :	" 10 " .
	4	1 " " " :	" 12 " .
Yes	5	1 blue enamelled " {human head <sup>d</sup> . bulls} broken :	" 4 jars, 3 burial urns, 13 tall vases;
	6	1 " " " {fem. fig <sup>s</sup> } :	containing 3 " " , 14 " " ;
yes	7	1 white " {do. do. } :	" 18 vases;
	8	1 plain gray " :	" 12 do ;
	9	1 " " " {broken at foot} :	" 12 do ;
	10	1 gray ribbed " { " badly} :	" 12 do ;
	11	1 " " " :	" 15 do ;
	12	1 blue " enam. <sup>ld</sup> " {badly broken} :	" several do;
	13	1 " " " " { do. do } :	" " do;
	14	1 gray " " {at head do } :	" " do & top of vert <sup>l</sup> drain
	15	1 Jewish Casket {cracked} :	" 52 Bowls;
	16	1 " " " :	" 32 Vases;
	17	1 " " " :	" 23 do ;
	18	1 " " " :	" 42 pieces pottery;
	19	1 " " " :	" 73 do. do. ;
	20	1 Bath tub coffin {broken} :	" Jewish coffin-lid (2 pieces) : water-spout;
	21	1 do " " " { " } :	" " " " ( " ) : N.S. ½Brick;
	22	1 " " " " :	" 11 Vases : 2 creased Bricks;
	23	1 " " " " { " } :	" several Vases.
	24	1 Box Coffin : 2 infant's coffins :	1 Urn, 4 Vases, 6 Bowls, 25 vases, 4 pieces (in Urn)
	25	1 Bath-tub coff. {round bottom} :	1 large Jar {7 vases}, 40 Bowls, 7 vase supports, 8 Bricks {8×3¾×2¾}, 1 inscb <sup>d</sup> brick  , 1 uninscb <sup>d</sup> do.  .

# F

## Contents.

Case No. 26	Bath-tub coffin : containing perforated Drain-Tile, 40 shallow Bowls, 3 Vases, 3 large vases {20,16 & 15 small vases respctvly}, 3 Ismi-Dagon Bricks.
" " 27	" " " : " 3 large Jars {17,15×7 vases}, 8 vases, 4 Bowls :
" " 28	Box coffin – 1 r.b. child's coffin : 2 urns {7 & 5 vases} : 2 Jars {10 & 5 vases} : 7 vases (small) : 6 Bowls :
" " 29	" " – water-spout & 13 vases :
" " 30	Bath-tub coffin youth's – 13 vases, 8 vase supports, Top of vert. Drain filled with pottery, 8 creased (finger) Bricks :
" " 31	Large Cauldron (burial) : – 2 drain Tiles, 2 creased Bricks, 2 16 in. paving Bricks, 5 inscb <sup>d</sup> Bricks {Cassite}, 4 do. thus:  :
" " 32	Large Vase – 40 <sup>?</sup> vases (some enam <sup>d</sup> ), 5 primitive Bricks;
" " 33	Burial Vase {Sargon level} contains 11 smaller vases : Top of vert drain, 13 vases inside :

G.

Contents.

Case No. 34.	Small cases Nos. 1 – 4.
35	" " " 5 – 8.
36	" " " 9 – 13.
37	" " " 14 – 21.
38	" " " 22 – 28.
39	" " " 29 – 36.
40	" " " 37 – 44.
41	" " " 45 – 52.
42	" " " 53 – 57, and 131.
43	" " " 58 – 63.
44	" " " 64 – 71.
45	" " " 72 – 79.
46	" " " 80 – 87.
47	" " " 88 – 95.
48	" " " 96 – 100, and 121.
49	" " " 101 – 104.
50	" " " 105 – 108.
51	" " " 109 – 112.
52	" " " 113 – 118.
53	" " " 119 – 125.
54	" " " 126 – 130.
55	" " " 132 {Duck weight, beveled inscb <sup>d</sup> stone} :
	133 {Frag. of Statue} :
yes	134 {unfinished vase of Alu-usharshid, Black Mortar Sargon level, marble mortar, elephant's bones :
56	1 uninscb <sup>d</sup> Brick 20 ins. sq. ; 5 Sargon and Naram Sin Bricks (inscb <sup>d</sup> )

### Mound I

This is the large Mound lying West of the Shatt-en-Nil on whose summit the first party, led by Dr. Peters placed its camp in the early months of the year 1889.

Four years later the writer sunk a shaft just outside the limits of this camp on the site of one of the native workmen's huts. The shaft was carried down through 97 $\frac{2}{3}$  feet of accumulated debris to the undisturbed soil of the plain, upon which the earliest occupants have left to us the first traces of their occupancy in the form of scattered (wood) ashes and numerous ash-pits, which still mark the places where the *ill.* campfires were built upon the level face of the plain by the first semi-migratory dwellers on this spot.

These earliest traces of man are doubtless the work of herdsmen, who for many generations may have dwelt in tents or in some kind of perishable hut, which has left no trace of itself to us, as the Arab shepherds, herdsmen, and husbandmen of Babylonia continue to live in tents and huts to this day.

Both on this mound and also on the Temple Hill the earliest vestiges of civilized man are found in wood ashes which first occur on the level of the original plain. In short wherever we have descended to the undisturbed soil the same numerous traces of fire everywhere abound. On the level of the plain ashes were so abundant and the intermixed soil is comparatively so little that the observer is forced to conclude that for a long time from the beginning of its occupancy, the ancient city of Nippur contained no substantial building of any kind, but that its first citizens lived an out-of-door life. Perhaps they sought shelter from storm and midday heat under a tent of goats hair or a lightly constructed hut of some kind, but bricks were not yet made and stone was not to be found and hence no durable building of any kind was constructed. It is probable that the herdsmen gathered their flocks about their tents at night and built evening fires among them to warm themselves in winter, and either kill or drive away the insects of summer as the Arab still does; while their kitchen fires would more naturally be made under the shelter of tent or booth. It is probable that the first cooking vessels were wide mouthed pots of burned clay, and that they rested on the two sides of a narrow trench in which the fire was made under the vessel. The native cooks accompanying modern travellers in Babylonia build their kitchen fires in precisely the same manner and for this purpose carry with them a small pick with a wide prong resembling a small adz. With a few strokes a narrow trench is dug, one or more cooking vessels placed upon it and fire made underneath of brushwood, where it can be obtained, or of camel dung where no other fuel is at hand. That hardwood obtainable for fuel in the beginning of Nippur's history is clearly attested by the abundance of hardwood ashes still containing bits of charcoal and unconsumed brands charred and still further oxydized.

In the dissection of Mound I if we could begin at the bottom and one by one remove the separate layers or strata of earth and debris in the same order in which they were deposited by successive generations of men, we should find that the first deposits of any kind which could be

traced to mankind is represented by a broken layer of blackwood ashes unevenly scattered over the surface of the plain by the first occupants of the soil.

In the places where the fires burned the fire pit, or as we may now call it the ash-pit is clearly shown and the ashes are often three or more inches in depth, while in other places, the accumulation is slight and in places disappears altogether. These are the earliest traces of mankind and they mark the level of the alluvial plain where the first inhabitants grazed their flocks and made their primitive abodes. But, you ask, how were the mounds made? Upon and above this deposit of ashes great mounds of earth and debris, aggregating nearly 100 ft. in height have accumulated by the gradual process of growth and decay, which, aside from conquests and conflagrations, mark the continuous destruction and repeated rebuilding of the public and private buildings of the city. The earliest buildings were for the greater part built with thick walls of sun dried bricks; the flat roofs were covered with from one to two feet of earth. Unless carefully watched the heavy rains of winter will cause water to percolate through the roof of earth and sooner or later the rafters (or more properly the joists) of palm wood weakened by moisture will break and thus precipitate the earth on the roof into the building. If the ruin is then exposed to severe wintry rains, the thick walls of sun dried brick dissolve and wear away with great rapidity.

In the winter of 1894 great destruction of property resulted from a severe storm of three days in Hillah, Baghdad, and other cities of Babylonia. Several streets in the city of Hillah were temporarily blocked by the debris from the neglected houses, the walls of which had frequently fallen into the street, making traffic impossible. Every severe storm, if long continued, in Baghdad, and other modern cities in Babylonia, cause the partial or complete destruction of a score or more of houses. Occasionally a life is lost and household goods sometimes share the destruction of the fallen building; but generally little harm is caused to either person or property beyond the destruction to the roof and walls of the dwelling itself.

The unburned brick walls of private buildings were about four feet thick, while the walls of public buildings were often eight or ten feet in thickness. When walls of such thickness were levelled by wintry storms the surrounding spaces of streets, court yards and roofless rooms were filled to a considerable depth. The rubbish was never carried away but simply spread about or levelled and upon the elevated foundation a new building replaced the older one. This process was often repeated and gradually the foundations of the houses were raised higher and higher as centuries wore away. Conflagrations and sieges sometimes caused the destruction of an entire city and the consequent rebuilding raised the whole city level several feet at a single step. In rare instances two mounds of earth were raised by the people for the king's palace that his royal and sacred person might be sufficiently elevated above the plain to be beyond the reach of the mosquitoes and other smaller but no less troublesome insects. Such are the chief causes for the growth of an ancient mound in Babylonia. Every city in the alluvial soil of Babylonia has left behind it a mound to mark its site, and every mound marks the site of some great structure, or points the traveller to the ancient and deserted site of a city or village.

In the dissection of Mound number I or of any other mound if we could reverse the process, and beginning at the bottom remove each layer and stratum of earth and debris in the order in which they were severally deposited we should find that the first and earliest traces of

civilization are the numerous fire-pits and the abundant wood-ashes that underlie all parts of the two principal mounds wherever we have descended to the level of the original plain.

Upon this lowest stratum of black ashes, from one to three inches in thickness, lie intermixed several strata of soil debris and hard wood ashes in alternate layer with a comparatively scant supply of potsherds scattered through the mass to the depth of about three feet.

This lowest three feet of accumulations therefore consists of several fine thin and well defined strata of ashes, soil and debris, which appears to represent a comparatively long time in process of accumulation. It seems to make an epoch in the history of the mound and to represent many generations of men who lived the life of simple herdsmen and husbandmen and made little use of pottery. The next superincumbent stratum consists of two and three inches of potsherds of all sizes and shapes mingled with a relatively small proportion of soil. This marks the beginning of the abundant use of pottery at Nippur, which is doubtless one of the oldest cities of the world. These potsherds are of excellent quality and are found in the greatest profusion. They attest the beginning of a great pottery making epoch which still hold sway in the land of its birth. No bricks had yet been made, nor had any substantial building of any kind yet been built. There is yet not (*sic*) trace of a wall or similar structure, while fragments of pottery everywhere abound and in great profusion.

Continuing our upward examination of the successive strata we find clearly defined layers of earth, ashes, and potsherds intermingled in narrow and wider bands of color – all representing more or less time in deposit – layer upon layer for a total height of more than thirty feet to the pavement of Sargon of Agade c. B.C. 3800.

At the height of three, four and five feet above the lowest stratum numerous bits of fine clay, which had been worked in the hand, were found in abundance showing that in the very early period, to which they belong and no one can even approximately date, men had begun to work clay in the hand. At the height of about seven feet from the bottom in Temple Hill was found a fragment of unbaked clay bearing a part of the impression of a seal cylinder incised with both human and animal forms.

Not yet had there been found any trace or hint of brick, tablet or inscription.

In the Temple Hill also within seven feet from the lowest levels were found two colored potsherds of a quality texture and finish worthy of the artistic taste, skill and creative fancy of classic Greece in the best period of her history. Five feet higher still another fragment of pottery of similar quality were found. Of these three fragments two are red; one is black. Though these are only fragments they prove that the art of making pottery was both better understood and more carefully practiced in very ancient times than it was for several thousands of years afterwards thus showing a marked deterioration in the art of pottery in Babylonia long before the beginning of authentic history. In the lowest twelve feet of the pottery bearing strata of all the mounds there *is* no sign of a brick or of a wall or of a tablet or of an inscription of any kind so far as we have been able to discover.

In the Temple Hill or Mound the lowest construction hitherto discovered is the vaulted drain described on page *blank* and, strange as it may seem, it was made of the oldest known kiln burned bricks and was covered with a perfectly formed arch. Hence the oldest construction known to man is an efficient drain surmounted by an arch embodying its perfect principles of construction.

It is possible that other constructions, which have not yet been found, preceded the drain, or were co-existent with it, but even in that case it remains true and is worthy of the highest consideration, that as soon as an arch was required, a perfect arch, perfectly adapted to its end, was made from clay which was the only material at hand, in a land where neither timber nor stone were to be found.

It was no crude affair requiring generations of men to perfect it; but was in its principle and character a perfect monument from the beginning, though of simple and natural construction.

Four feet above the bottom of the drain and on a level with the top of the covering arch are the foundations of the earliest edifice, twenty three feet square and in its ruins eleven feet high, which has yet been examined. This is the structure which lies underneath the eastern corner of the ziggurat of Ur Gur's time. No clue to its age exists excepting that it was in ruins in the time of Sargon and lies beneath the pavement of his son Naram Sin.

Eight feet above the top of the arch was a curb bounding a sacred enclosure, possibly antedating the first ziggurat of which we know but little. Three feet above the curb and within the sacred enclosure stood an archaic altar. This was below the level of and therefore preceded the time of Sargon of Agade. Below the level of the altar and above the level of the arch were many large vases of pottery evidently intended and used to contain water for ablutions in the temple service. On the same levels as the curb and altar are remnants of several small aqueducts apparently intended to supply a stream of living water to be used in the temple service. How the water was raised to the level of the aqueducts no trace is found.

On the level of the curb fifteen inscribed tablets were found. These tablets were doubtless the lowest and belonged to the oldest stratum that have yet been uncovered at Niffer. At another point and on about the same level were found a few fragmentary tablets which I do not think belong to so early a period as the above.

About thirty feet above the plain level, the pavement of Naram Sin gives us the approximate date on which we can rely. All that lies below that level can only be compared in its relation to the known work of Naram Sin. Above the pavement of Naram Sin many trustworthy clues and well known strata in which pottery of coarse texture and inferior quality everywhere abounds, but none to compare with the three small fragments described above, nor will it compare with the commonest pottery found in the lowest levels.

To return now to the mound numbered I. The lowest three feet as has already been mentioned consisted of black ashes and finely intermingled strata of earth containing only a comparatively small quantity of potsherds and lumps of clay worked in the hand.

Then comes a thicker layer of fragmentary clay colored pottery of good quality.



Lumps of clay, worked in the hand, were still found scattered through the next six feet as the successive strata were traced in ascending altitude. At the height of about seven feet a layer of ashes, nearly brick in color were observed. Pottery is observed everywhere but much less abundant in the lower part of this mound than in the temple mound but the same facts are also observed viz. that the pottery of the earliest period is superior in quality to the pottery of the Sargon and the post Sargon period.

In the narrow shaft, not exceeding four feet square, no construction of any kind was encountered, nor was any trace of civilized life noticed beyond the ashes, lumps of worked clay and potsherds, which have been duly mentioned and occasionally a decayed animal bone in the lowest thirty feet of accumulated debris. At the height of about thirty one feet a wall of crude or sun dried bricks was cut through. It was nine feet high and only two feet thick and could only have been the wall of a light building like a private dwelling, I think. Extending partly underneath the wall was a grave made of crude bricks described in the chapter on "Sepulchers and Burial Customs". I do not know the approximate age of this grave; but I am sure it is not later and may be much earlier than the era of Sargon.

At the height of about seventy feet a stratum was cut through which produced inscribed tablets of the Kassite period c. B.C. *Hilprecht: 1400* and about five feet higher was the level of a later lot of tablets belonging to about B.C. 450 (?)

At the height of eighty one feet above the level of the original plain, the shaft passed through a burned brick pavement in the court of a dwelling and two and one half feet higher a similar and later pavement was pierced in like manner.

It is possible and perhaps probable that the latter belonged to the Selucian (*sic*) period. This conclusion is based on the similarity of the structure and its building material to the houses supposed to belong to the same period on the Temple Hill and within the Enclosure of the Temple itself.

I am well aware that this identification is only conjectural as the bricks were not stamped and neither inscriptions nor well-marked objects of any kind were found to give a more exact testimony to the date of these houses.

Ninety feet from the level of the plain, the shaft cut through the earthen floor of a house belonging to the Jewish (?) period and to about the *Hilprecht: 8<sup>th</sup> century AD*.

Potsherds abound in great profusion throughout the shaft in all depths and of all ages, from several thousand years B.C. down to the first centuries of our era.

As in the Temple Hill, so in this shaft, the earliest specimens of pottery are far superior to the later. Before the time of Sargon of Agade, the quality of the pottery had deteriorated in a marked degree and again from the time of Ur Gur further deterioration is also traced in the art of pottery making.

It may in general terms be said that after the time of Ur Gur the coarser kinds of pottery differ little from the common pottery made in Baghdad today. At the same time, it should be said that

many kinds of pottery in many styles and qualities were made before and after the time of Ur Gur.

### *Hilprecht: Temple (III)*

By far the most interesting and perhaps the most permanently valuable part of my recent researches at Nippur were on the Temple of Bel and in its great court, which has been frequently described as the Temple Enclosure or Temple Area.

These researches were made under difficulties, disadvantages and dangers which at times seemed likely to render futile my best endeavors. In the end faith, courage, energy and persistently repeated effort in season and out of season, brought success in full measure. Many valuable discoveries have been made. More than *blank* names have been added to the fragmentary lists of kings, and the story of their reigns is outlined by a growing mass of material gathered from inscriptions, monuments, utensils and works of art. The borders of ancient history have thus been enlarged; its visible horizon extended. Our knowledge of antiquity is rapidly widening, its barriers are breaking down. The myths and legends of an almost incredible antiquity are being tested and corrected by the written documents and living monuments of rulers and builders whose names are now familiar to us as household words.

The traditions of the last decade merge into the substance of authentic history of our day and become the common heritage of all, so that the christian's faith suffers no violence, but is rather strengthened by the confirmation of fragments of early history preserved to us only by tradition. It is not too much to expect that ancient history will require to be rewritten when our explorations at Nippur shall have been completed. The history of Babylonian art will also gain much in the revelations of history; much more from the remnants of ancient handiwork as our knowledge of the institutions, arts and customs of the earliest period of civilization increases.

There is little doubt that other valuable discoveries will reward the continued painstaking exploration of the Temple Area, and it is our hope and plan to continue the work of exploration until at least the Temple Area shall have been fully examined. Many details of the Temple are still involved in obscurity. We can hardly hope to fathom all its mysteries, and yet it remains our plain duty and high privilege to examine as fully as possible, and to explain as best we can, its many features and functions which now lie beyond the limits of our knowledge. I will not, therefore, in its present state of incompleteness, attempt a general description of the temple at this time, but without even attempting to enumerate all of its interesting details, defer the general statement until the Temple Area shall have been more fully explored. There are, however, several notable discoveries in the details of the temple itself and of its environs, so unique in character and of such importance in the history of ancient art that they cannot be wholly omitted, though they find but brief mention in this partial and preliminary narrative of my work.

The most interesting of these are:-

1. The Causeway
2. " Conduit

3. " Archaic Altar
4. " " Curb
5. " Water Vents or Water Cocks
6. " Keystone Arch.

#### The Causeway.

The cause-way is an approach to the terraces of the ziggurat of Ur-Gur's time, and was built by Ur-Gur himself. It consists of two nearly parallel facing walls of kiln burned bricks filled in between them with a solid construction of crude or unburned bricks. The burned bricks are of the usual size and proportion of Babylonian bricks and in average dimensions are about twelve and a half inches in length and breadth, and in thickness about two and a half inches. All the burned bricks were of one mould and perhaps three-fifths of them were stamped with the name of Ur Gur. The remaining two-fifths were never stamped but are of the same manufacture as the stamped bricks. The crude bricks approach more nearly the form and dimensions of modern building bricks. They measure  $9 \times 6 \times 3$  inches and were not stamped, and though widely different in form from the stamped bricks of Ur-Gur, these are also identified as Ur-Gur's bricks from their relation to the kiln burned bricks of Ur Gur in the causeway, and in the body of the ziggurat itself. The burned bricks were laid in bitumen as are also the facing walls of the lower stage of the ziggurat which was built by Ur Gur. The crude bricks were laid in a mortar of clay mixed with straw. The facing walls were 4 ft. thick and as they rose sloped inward with a batter of one to eight, or one and a half inches to the foot. The batter of the lowest stage of the ziggurat is three inches to the foot or one to four, being just double the batter of the causeway walls.

Note Height and width of causeway can be obtained from some of my letters and from Meyer's drawings and plans. A sufficiently clear description accompanies photographs of the causeway. One or two photos of the causeway should be published with this description.

#### The Conduit.

Note. Meyer's drawings, sketches and plans of the conduit should be published, and I think the description which accompanies and follows them will be found sufficient. (See letter of August or September 1894)

#### Archaic Altar.

Note This is shown in several photographs and the description of its discovery about Jan. 1894 will perhaps be sufficient.

### Archaic Curb.

Note. Meyer's drawings and photographs should both be published and the text accompanying them.

### Water Vents or Water Cocks

Note. Meyer's drawings and accompanying description ought to be published. Fragment of fountain discovered in bed of Shatt-en-Nil in Aug. (I think) 1893 might also be mentioned quoting from letter and if possible photographed or drawn from illustration.

See also the seven following pages.

Near the foot of the Altar, but at a much lower level, and between the level of the drain and the very ancient edifice whose foundations lie four feet above it were found great numbers of archaic water-vents of terra cotta in a more or less broken condition. Altogether several hundred of these objects were found within a radius of five feet. In all this large collection no perfect specimen was found. All were more or less broken. A considerable number, however, were but slightly defective, and from these a complete and faithful restoration has been made. They were all found near the arch and in same level as the crown of the crown *sic* of the arch surmounted by a terra cotta tile or pipe with which I believe it will be associated when by continued exploration we shall have gained a clearer understanding of the various aqueducts of later date and their uses in the purifications and ablutions required in the temple service. Their position thirteen feet below the pavement of Naram Sin attests for these archaic forms a venerable antiquity.

Fig. 29. shows a general sketch and gives a section of the terra cotta water cock or vent. It terminated in a wide funnel-shaped end, where the pottery presented a comparatively thin flange-like edge into a tile or pipe probably entered. The cock or vent had two openings or discharging orifices; one perhaps being turned upward, while the water flowed through the other which probably turned downward. (Precisely this type of water vent is in common and constant use in many parts of Turkey at the present time, the vent being placed in the public fountain with the larger opening turned upward. The stream flows through the downward turned opening into a trough of stone below it. Women and girls resorting to the fountain fill their water-pots by holding them in line of the falling stream, and for this purpose the upward-turned opening has no office to fill. It has a clearly defined use when when (*sic*) a thirsty traveller or a villager without a cup seeks to quench his thirst from the flowing stream. The wayfarer closes the lower opening with the palm of his hand, and putting his mouth to the edge of the upturned opening, drinks the overflowing liquid as it rises of its own force to his thirsty lips. In the city of Brusa at the foot of

Bithynian Olympos this is a common sight as it is also a remarkable instance of the tenacity of ancient customs, manners, and methods.

### The Keystone Arch

It now appears that the arch was first built of bricks and in common with many other constructions, institutions, customs and habits, which have descended to us, had its origin in Babylonia, where Scripture and tradition, confirmed by modern research, find the earliest traces of civilized man. It would also appear that the origin of the arch is co-eval with the introduction of burned bricks and that it precedes the art of writing on tablets of clay so far as we have been able to discover.

A paved water course more than 40 ft long trending N.E. & S.W. extending diagonally far under the most ancient ziggurat ended in a vaulted drain which now measures 3 ft in length from the outlet of the drain or water course. It is probable that the entire water course was originally vaulted; and it is certain that a considerable portion of it was vaulted.

The northwest end of the vaulted part of the drain shows a perfectly formed elliptical arch 1'8" in span; of 1'1" rise, with a total height of 2'1" from the pavement to the top of the crown inside.

The arch is built of burned bricks of the most primitive type such as occur in the archaic curb, which bounds the sacred Enclosure of the pre Sargonic dynasty of kings and they are laid as radiating voussoirs in a symmetrical keystone arch.

These bricks measure twelve inches in length; are six inches wide, and vary in thickness from two and a half inches in the center to about one and a half inches at the edge. They are plano-convex in form and their convex faces were indented with a finger dot or creased by a finger mark. Sometimes they were deeply creased by drawing one or more fingers across them lengthwise, sometimes they were deeply and irregularly indented by pressing the thumb and index finger into the middle of their convex faces, thus leaving two dots or indentations. They were soft and porous in texture, light yellow in color and their faces were rudely formed by the hand, the creases and dots being evidently designed to secure a firmer hold on the cement of clay. This is the earliest type of burned bricks which have been found at Nippur or elsewhere in Babylonia.

Some of the bricks appear to have been chipped to a wedge shape, but the curve of the arch is mostly effected by wedge shaped joints of the simple clay mortar used to cement the bricks.

The arch consists of 13 voussoirs springing from two courses of bricks laid on edge with the small end exposed, herring bone fashion, which in turn rest on a single horizontal course of bricks laid on edge leaning toward the northwest and these are supported by a single course of bricks laid flatwise with the convex surface uppermost.



The side walls of the drain are built as follows. Six courses of bricks are laid flat-wise with the long edge presented to view. Upon those two courses are laid edgewise with the end shown and upon these two courses laid similarly to the six lowest courses complete the walls of the primitive drain. The drain is apparently much older than the very ancient edifice whose foundations lie fully four feet above it and to whose age no certain clue has been obtained.

Eleven feet of accumulated debris, representing an unknown period of time, had already covered the crown of the arch before Naram Sin laid his pavement above it. On the outer or southeast side, the arch is somewhat flattened by the weight of earth above it perhaps when the clay mortar had been softened by percolating water. On the top of the crown of the arch is a crushed terra cotta tile or pipe which was perhaps 3 or 3½ inches in diameter.

Just beneath the level of the pavement and also in the middle of the water channel are two parallel terra cotta drain tiles 8 inches in diameter with a 6 inch flanged mouth. The joints or sections of the tile measure two feet in length and are laid in a bed of clay mortar and its joints are filled or cemented with the same material. The mouth of the drain is closed by a T shaped construction of the same primitive type of burned bricks of which the vaulted drain is built. Whether this was the means employed for centering the arch no one can say. Since there is no trace of this construction within the arch, but only at its outlet, there is some reason to think that it may have been a device to exclude domestic animals, like sheep, from seeking shelter within it against the pitiless sun's rays in midsummer.

For a distance of 6 ft. beyond the vault the water course is lined on each side with a single row of bricks standing on end with their faces toward the water channel.

The arch is a remarkable piece of work for it is a true elliptical arch constructed on the principle of radiating voussoirs. It is not a pointed arch with a block placed between the two parts on the top, but a true curve where each brick is an independent member.

The N.W. end of the arch is in fairly good condition with only two of its bricks driven out of line. In the intrados of the vault the bond is indifferent being neither a regular bond nor successive rings but a mixture of both.

It is surprising and interesting to have discovered a true keystone arch antedating (*sic*) by 3,000 years the oldest arch of its kind which was previously known to history; but it is still more surprising to find that the earliest construction of burned brick which has ever yet been unearthed is a drain; and again when we find this very drain vaulted with a perfect arch, the boasted intelligence of the 19th century reaches the utmost limit of astonishment; for the existence of the

arch at the very point where men first began to build is contrary to all our notions of the conception and evolution of the arch as an important element of modern architecture, and yet the earliest construction known to man is a perfectly formed arch of the keystone type covering a drain. Below the level of the arch no burned bricks have hitherto been found at Nippur.

It is not therefore improbable that in a land where no stone was to be found, the necessity of constructing drains and water courses of some durable material, which should resist the action of flowing water, led to the invention and adoption of burned bricks to pave the bottom & build the sides of waterways.

The necessity also of covering the drain with enduring material seems to have led simultaneously to the construction of the arch. Not only was the principle of the arch perfectly understood in Babylonia as the earliest architectural construction known to us seems to prove but certain other useful arts were more perfectly understood and more skillfully practiced in the earliest centuries of Nippur's history than they were for several thousands of years afterwards.

The multitude of potsherds scattered profusely through the vast accumulation of debris and deposits, attest the fact that the art of making pottery was better understood in the earliest times. The best examples of pottery were found at a depth of eight feet below the level of the arch.

The very earliest traces of civilization at Nippur are ashes where fires were built on the level plain. Immediately above these are fragments of potsherds (*sic*) mingled with the debris of earth, decomposed refuse matter and ashes. Speaking in general terms all of the best pottery is confined to the lowest twenty feet and its decadence as an art dates from about the time of the arch which I also believe to be nearly contemporaneous with the foundations of the earliest temple, of which we know but little at the present time.

#### Note

Photograph and description of pointed arch should follow here. This arch was first mentioned in letter of April 27. 1895.

Its dimensions and further description accompanied the photograph at a later date.

1897-00-00. Haynes narrative, part 1. UPMAA\_Nippur\_12.07, 1-155 + 12.08, 1-122. L-229.  
TO

*Hilprecht's numerous corrections and comments to the text have been ignored.*

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In ancient times the territory round about Niffer was thoroughly irrigated by a system of canals from the "great River Euphrates" (Rev. 1.14:16:12) At the present time the mighty mounds of Niffer stand desolate and defiant on the reedy borders of the wide spreading marsh created by an overflow of a wayward division of the Euphrates vainly trying to irrigate one of the most fertile soils of the earth, made barren and unproductive by the desert loving descendants of Ishmael. Periodically the waters of this marsh become low and putrid, swarming with insects which bite and sting and buzz with ever increasing activity and virulence, by day and by night, as the season advances into summer and autumn, and until the wintry rains destroy the insects in the waning days of November. Those drying marshes abound in fever, famine and pestilence in the late summer, and in the later autumn months they reek with disease and death on all sides.

The greatest mortality occurs in the late Autumn and early Spring months. The majority of those who die in the autumn owe their deaths to malarial fever or dysentery, while great numbers die of quick consumption in the early springtime. The latter usually take cold in the autumn, suffer with malarial fever for several weeks and finally yield to a disease that I believe might have been avoided with intelligence and care. Even the thick skinned buffalo submerging his ungainly body by day in the muddy waters of the marsh, needs protection by night from the devouring hords of poisonous insects which attack man and beast alike. Yet in the results of its exploration, the choice of Niffer has been most happy.

The first expedition was organized in the year of 1888 and put under the command of the Rev. John P. Peters Ph. D. who as director, led the party successfully into the field, showing a spirit of signal courage and perseverance against difficulties, fatalities and obstacles which would have deterred a man of less courage than its determined leader.

The party of six persons arrived at Niffer on the 2nd day of February 1889, and four days later began active excavations with a force of Arab laborers that varied from one to two hundred in number. Fifty-eight days of actual excavation yielded good results. The summer heats were rapidly approaching; serious trouble with the Arabs had arisen, and on the 15th of April excavations were discontinued, and soon afterward the party disbanded.

In the summer of 1889 a terrible visitation of cholera swept over Babylonia, and in the vicinity of Niffer claimed for its first victim the perfidious chieftain who most sorely wronged the expedition. The death of that Sheikh was regarded by the Arabs of his own tribe, as an expression of divine vengeance and a just punishment for the treacherous acts of the tribe under the direction of its chief. Through the humiliation of the superstitious Arabs, it was now possible for the expedition to return to the very place whence it had been driven away a few months before, with disaster.

The party now reduced to three persons, returned to Niffer under favorable conditions, and on the 14th day of January 1890 resumed explorations with a maximum force of four hundred Arab laborers. Actual excavations were conducted for ninety-three days and came to an end on the 3rd day of May of the same year, and again a rich reward awaited the self denying efforts of that persistent explorer, searching after the buried treasures of a long forgotten past.

In the summer of 1892, the Committee of the "Babylonian Exploration Fund" having secured the necessary means, determined to take up the work of exploration at Niffer at the point where it had been left more than two years before by Dr. Peters. In due time the writer, who had already had more than ten years of foreign service as teacher, traveller, Consul, and had moreover been connected with each of the previous expeditions to Asia Minor and Babylonia, was sent alone to continue explorations with native helpers for a period of not less than two, nor more than five years of continuous research in the gigantic mounds of the ancient Nippur.

By all Babylonian travellers, explorers and historians, it has been considered impossible for an occidental to conduct explorations through the burning heat of a Babylonian summer, whose extreme temperature in perfect shade often reaches 120° Fahr., and has been recorded at 124° fahr. The average maximum for the months of July and August from year to year is about 115°. From May until November countless hosts of devouring insects swarm from the great marshes, to make life a weariness to the flesh, and the stifling dust squalls and sandstorms, which last for many months, blind the eyes and choke the throat, and grains of sand, and bits of pottery pelt, and cut, and cause to sting, the parching cheek, half paralyzed with heat, electricity and the stinging concussions of the windswept objects hurled with fury against the exposed parts of the face, neck and hands, and clouds of dust rob the noonday sun of its shadow.

In pursuance of plans formulated by his committee, the writer sailed from New York on the steamship Nevada, August 28, 1892 and reached Liverpool on the 7th and London on the 8th of September. It was his intention to hasten from London, through Europe by the Oriental Express to Constantinople in three days, but cholera having in the meantime appeared on the continent, quarantine was established at five successive frontiers between Vienna and Constantinople, making the journey by rail both tedious and expensive. Under these conditions, it seemed best to make the journey by sea from Liverpool to Constantinople. Steamers were also detained because of the quarantine, and the first steamer sailing for Constantinople left Liverpool on the 28th of September, calling at Gibraltar, Malta, Syra and Smyrna, arriving at Constantinople on the 14th of October. Application for an Irade from his Imperial Majesty, the Sultan, was at once filed with the Minister of Public Instruction and secured at the expiration of ten weeks. After obtaining the Irade, the journey to Babylonia was resumed. The route lay by sea to Alexandretta, thence overland by a caravan of horses and mules to Aleppo in four days, to the banks of the Euphrates in three days, down the right bank of the Euphrates for three weeks to the site of the ancient battle field of Cunaxa, thence across Mesopotamia at its narrowest point in two days to the "City of Peace and the Tower of the Saints," the "ever glorious city of Baghdad" on the Tigris, where the journey was broken on the 6th of February 1893, for thirty days, by reason of the illness of the camp steward and delay in the arrival by steamship of general supplies from New York and London.

The general supplies and equipment from New York and London had at length been received, cleared at the custom house, and repacked for transportation by pack animals. The camp steward had recovered usual physical health; certain lines of supplies had been completed in the capital of Haroun-al-Rashid, pleasant relations had been established with His Excellency, Haji Hassan Pasha the Governor-General of Baghdad, who had graciously furnished an escort and guard of

four soldiers from his capital, and ordered two more to be provided from Hillah, the site of ancient Babylon.

On the 9th day of March, the little party consisting of the Turkish Commissioner or inspector, Saleh Effendi, three assistants, four soldiers, and the writer filed out of the southern gate of the City of Caliphs with a mixed caravan of camels, horses, mules and donkeys numbering fifty-three in all, of which nine horses and donkeys were ridden by as many men. Forty-four animals were laden with boxes and bales of many shapes and sizes, containing the supplies, implements and equipments for our existence and work of exploration in the desert. The party crossed the Tigris on a pontoon bridge owned by the government as source of revenue. The toll for a donkey load is two cents, for a loaded mule or horse four cents, for a laden dromedary eight cents.

Toward nightfall the party rode with all the caravan into the capacious court of Khan Mahmoudieh, an enormous caravanserai covering more than two acres of ground. Several hundred pilgrims from India, Persia and Southeastern Russia had taken possession of the great Khan. Like everybody else, our party spread its own beds and cooked its own meals independently, there being nothing furnished and no rent for the Khan, which is free to all.

The second day of our journey was a day long to be remembered in the annals of Oriental travel. As the little party left its capacious caravanserai at the rising of the sun, the sky was overcast with heavy clouds, and the wind blew cold and damp from the South seeming to threaten rainfall, but no rain fell. The violent wind increased hour by hour and before 9 o'clock a terrific storm without rain met us full in front. For six long weary and anxious hours we fought and struggled against the most violent, the most suffocating, the most blinding and by far the most bewildering sand storm, so reliable people declare, that has visited this region in many a year.

The wind blew a hurricane, and raised thick clouds of sand and dust so impenetrable to human vision that at a distance of fifteen feet, the eye could not distinguish an animal form. With terrific force particles of sand and the finer impalpable dust of ages were driven against the half paralyzed cheek, filling eyes, ears, nose and mouth, and choking the throat, while stifled with dust and germs, it gasped for a single breath of fresh air. The desert sands were shifted and drifted like the feathery flakes of the new fallen snow on the stretches of the rolling prairies or a mountain top of New England. Under the lee of every telegraph pole, and behind each ant hill, the sands were gathering in hard drifts. The ancient irrigating canals in process of obliteration caught the flying sands while the clouds of dust swept on apparently undiminished in volume and fury. It was only with the greatest difficulty that the pack animals were kept together and in motion, and when toward nightfall we arrived safely at Khan Mahawil, six miles from the ruins of Babylon, which hallowed site lay ahead of us on the morrow's journey, there were feelings of profound gratitude that neither man nor beast had suffered permanent injury, though other travellers had strayed or perished in the fury of the storm. It was afterwards learned that many had lost their lives in the severity of the storm, showing from how a great a danger we had escaped, and unto that kind Providence who watches over all His creatures, we returned hearty thanks.

When Hillah was reached at noon on the third day from Babylon *sic, Baghdad*, the newly arrived Mutiserif or governor of the Sanjak of Hillah was ill and unable to receive us at the palace until the 14th, three days after our arrival. Our powers to endure had already been severely tried, and this delay was grievous. We were anxious to hasten forward to the field where our deepest interests lay, and right glad were we when on the following day we could set forth knowing that friendly relations with the Governor had been established, and that our interests would be both protected and projected by virtue of his kindly offices, now enlisted in behalf of a work of interest and value to the whole civilized world of progressive thought and purpose.

A contrary wind arose the following morning, but the growing party faltered not, and with the addition of thirty-five skilled laborers with their families, and two soldiers, and also with beds, tents, implements, equipments and provisions, embarked in three of the larger type of boats on the Euphrates, and began the descent of the noble stream alternately rowing and towing, pulling, pushing and punting, drifting and sailing the keelless craft against a head wind with the swirling current alone to aid us. All day we toiled in this romantic manner, and at eventide, having covered some twenty miles, found ourselves at the upper or larger Haghan, where we gladly moored for the cold night as the violence of the wind increased. Daghara, some twenty miles further down the stream, was reached in the early afternoon of the following day. At Daghara the boats were moored two nights, while Saleh Effendi the Turkish inspector or commissioner and the writer, having secured at exorbitant prices the only mules to be hired, set off overland to pay official visits to the sub-governor (Kaimakam) of Divaniyeh, some ten miles distant, in which district Niffer is also situated, about twenty-five miles from Divaniyeh and twenty miles from Daghara.

At the palace in Divaniyeh a handsome entertainment was given, and all the high officials and functionaries of the civil and religious orders became apparent friends and proffered their kind offices in all courteous and useful ways. Officials everywhere in the vilayet of Baghdad have been uniformly courteous, obliging and active in all that they have been requested to do for the expedition, and in all these things his former experience as United States Consul at Baghdad and the relations both official and private growing out of the office have proved to be of great personal advantage to the writer, and has given him greater influence in both official and personal intercourse with civil and military authorities, than could have been hoped for or asked, for all of which we are duly grateful.

The Governor of Divaniyeh, whose brother was a personal friend in Baghdad, and whose distinguished family represents the bluest blood of the old time aristocracy of that wonderful city in the palmier days of her bygone history, after he had sumptuously entertained us over night, insisted on preparing a mid-day banquet, which so detained us that we only returned to Daghara at eventide. However since the wind had been contrary and violent all the day, nothing had been lost by the delay at Divaniyeh, while the visit itself bore abundant fruit throughout the entire three years of research in the mounds of Niffer.

After a comfortable night's rest in the government palace at Daghara, the party set sail with a favoring breeze for the seat of Haji Tarfa's empire some six miles distant from Niffer toward the

southeast. Some two miles above Daghara, we had left the “Great River Euphrates” turning into a division of the noble stream, which division creates the great marshes round about Niffer, and continuing its meandering course through the low parts of the alluvial basin included between the two great rivers of Mesopotamia, rejoins the Euphrates one hundred miles further to the southeast near the site of Ur of the Chaldees. Our voyage was now among the Arab tribes, whose lofty castles bristle with Arab fiends vieing (*sic*) with each other in petty tribes and under petty sheikhs for control of irrigating streams and adjoining territory. At Abud-el-Gumba’s camp a messenger and guide from Haji Tarfa awaited our arrival, and according to Arab customs escorted us past several castles to the powerful and dignified Sheikh, who, with rare tact, sagacity, judgment, and power, rules in equity and honor the several sub-tribes of the Afaj and El Hemza Arabs, each under a petty chief or Sheikh, a sort of “Imperium in imperio”

Haji Tarfa received us cordially at the door of his guest chamber, and in gracious speech acknowledged the receipt from the Committee of the “Babylonian Exploration Fund” of a gold watch which it was my good pleasure to present to him, as a token of good will and a pledge of faith. He promised to see us safely established at Niffer with the least possible delay and expense to us, and accordingly he despatched swift-footed messengers to summon to his council chamber the two younger and principal Sheikhs of the El Hemza tribes. Abud-el-Hamid and Hamid-el-Birjud in whose immediate territory the mounds of Niffer lie. To those two younger Sheikhs Haji Tarfa proposed to commit our party, and to hold them responsible to himself for its safety and welfare. Early on the following day the wiley, smooth tonged chief Hamid-el-Birjud responded in person to the summons. From the more honorable and stolid Sheikh, Abud-el-Hamid, president also of the five sub-tribes of the El Hemza Arabs, answer came that he had a pressing task to finish, and that he would first complete his work, and then obey the summons. He came at nightfall. The evening hours were spent in the hardest, closest most determined bargaining in which I have ever participated, for those means of protection to life and property recognized by Arab customs, which, “like the laws of the Medes and Persians” altereth not. The two chiefs Abud and Hamid, were greedy, covetous, and without scruple, and were determined to force from us large revenues by reason of the necessity that was upon us to secure their good will and protection. The expedition having a great and noble work to perform was under an imperative, moral obligation to the whole world of science and scholarship to make its scanty funds do the utmost labor in achievement of great results in recovery of lost history. It was the spirit of enlightened progress and self-denying research striving against great odds with the unscrupulous greed of the ignorant, fanatical Arab at his worst a villain by nature, and at his best a self-trained robber.

In the preceding campaign a guard of twenty Arabs had been employed and regularly paid for, although less than half the number paid for was actually furnished. The Sheikhs who received the full payment for the guards, put a large part of the money in his (*sic*) own purse, and moreover levied a regular tax on each family of laborers who came from a distance. The revenue thus received was a princely income to the mercenary Sheikh Hamid-el-Birjud, who by fair or foul means, was now determined to increase the rate of his former income, while the expedition was under the stern necessity of reducing such fruitless items of expenditure to the lowest reasonable and safe limits. I, therefore, asked the sheikhs to furnish two guards, was laughed to

scorn and met with a firm demand for twenty after pretended show of necessity for forty and then thirty. As his guest I appealed to Haji Tarfa, who replied “For my private premises in this large encampment I employ four guards, how can you safely live out in the desert with two guards?”

At successive intervals in the hard fought battle, I asked for four, six and eight watchmen, and finally accepted ten because I could do no better, and Haji Tarfa being again appealed to, insisted upon that number, saying that the Es-Said tribe, from whom a robber had been killed by one of the camp soldiers in the previous campaign, had felt chagrined that the members of the expedition had eluded them before, and that they would be the more determined to settle the blood feud (*sic*) this time by the letter of the Scripture law “Whoso shedeth man’s blood by man shall his blood be shed.” Gen. IX.6.

The younger Sheikhs refused to accept the above terms still demanding twenty guards. After every possible argument had been repeated and exhausted, and every possible attempt made by the Sheikhs to gain unlawful revenue for their patriarchal purses, all parties desisted to obtain a little rest and sleep in the remnant of the far spent night. As soon as the camp was astir in the morning, preparations were made, and in due time orders were given for the party to turn homeward. This necessary manoeuver succeeded where argument had failed. The Sheikhs accepted the terms, and Haji Tarfa bade them escort the party withersoever it might choose to go, and see it safely established wherever it might wish to dwell. Two hours sail found us within one and a half mile from the great mounds of Niffer, where on the 20th of March 1893, two hundred and seven days from New York, the expedition pitched its camp and established its headquarters for thirty-five months of consecutive work, save two months cessation from April 4th to June 4th 1894, when the party went as far as Baghdad in vain endeavor to return to native shores for rest and replenishment of outfit.

On the plain immediately to the Southwest of the wide spreading mounds of Niffer, a temporary camp was established near a small mud-filled irrigating canal, which supplies an intermittent stream of water from the neighboring marshes from about the middle of March to the middle of July. In July the canal dries, and does not again refill its muddy banks, until the melting snows on the mountains of Ararat send forth the Spring inundations to swell the rising current of the great river Euphrates until that noble stream overflows its banks and renews the floods in the great marshes and its radiating channels of irrigation.

Four tents of medium and small size sheltered the officers, soldiers, and camp servants of the expedition, and in the quadrangular space enclosed by the tents the boxes and bales containing the general stores, provisions, implements, and equipments of all kinds were stacked and protected with waterproof coverings. The Arab imagination, as fanciful as of yore, filled the boxes with gold and silver and coveted the precious metals with a robber’s greed for gold, which generally keeps apace with the fertile imagery of the Arab mind, and is as unbiased by the limitations of logic or the laws of physical science, as were the matchless story tellers of the “All glorious city of Baghdad” under the brilliant reign of Haroun-al-Rashid in the golden age of Saracenic history. It was essential to store the boxes out of the sight of a robber people. It was equally essential to secure better storage for valuable instruments used in photography, surveying

etc., than a tent on the shifting, drifting, sands of a burning desert, and it was much more necessary to secure the shelter and protection of walls and roofs for those who were born and bred in cooler climates.

It is true that in the two former campaigns the party lived in tents, but it was then winter, and moreover native storehouses had to be built at considerable expense for the short seasons of two and a half and four months respectively. For a period covering two or three consecutive summers, it was an absolute necessity to build a more permanent shelter, that should also have the appearance of strength, and exclude the people round about us from its precincts. The first task was, therefore, to build a defensible or fortified structure combining, so far as possible, the features of a castle, a storehouse, and a dwelling for the members of the party. Around the four sides of a court twenty by thirty-five feet a building 70×50 ft. was erected, having no external windows, and but one door. The exterior walls were made of clay laid up en masse. They were seven feet thick at the bottom and gradually diminished in thickness, as they rose with a batter of about two inches to the foot on each face of the wall. The partition walls two feet thick were built of ancient kiln-burned bricks averaging one foot square and two and three quarters inches in thickness. A kitchen, several store rooms, for provisions and antiquities, and quarters for the camp servants and soldiers were built around the court, the soldiers being so placed as to command the doorway, within which the Arabs were not admitted. Beside the other store rooms was a place of storage for fuel and a chicken coop. Near the center of the court a well was dug, and a pump inserted, though the water was too strongly impregnated with various salts to be used. The well was made to furnish water in case it might become necessary to have a supply of water which the Arabs could not control at will. A second story was added to the southeastern end of the "Castle", as the Arabs designated the building in common speech. In those upper rooms the director of the expedition and the Turkish commissioner or inspector lived. There was also a drying room for tablets in the upper story. The flat roof covering the second story made an excellent sleeping place for the summer months, when it is too hot to sleep under cover of tent, or within walls of any kind.

Like many of the ancient structures, the angles of the "Castle" were placed towards the cardinal points of the compass. This was done to secure a direct breeze through the building in summer when the wind steadily blows from the Northwest. It is almost certain that without the shelter and protection of the building, the health of the party, and therefore its success, would have been greatly impaired, and it is probable that the first summer would have proved fatal without its grateful (*sic*) refuge for the midday rest, and its high sleeping place in the cooler strata of the sultry night air at Niffer.

Under the superintendence of the writer, the entire building was built in twenty days by the skilled laborers which he had hired from Hillah to excavate the mounds. Palm logs were brought from Hillah, and reed mats purchased from the neighboring Arabs were utilized as a support for the floors and roofs of clay-cement. The few doors in the building were made by the writer's own hands from small poplar poles and old boxes. There was among the workmen one bricklayer, but no carpenter nor other artisan except the laborers skilled in searching the graves



and habitations of antiquity. Yet the "Castle" though rudely and roughly built attracts attention and answers every use of comfort, shelter and protection which it was designed to give.

The house having been completed, the tents were quietly struck and folded away, the property of the expedition was safely stowed away from the sight of covetous eyes; and the party took possession of its fortified dwelling happy to be again free from the prying crowds of curious and covetous idlers always thronging about the tents; henceforth to be excluded from the privacy of the fortress home with its sacred shelter of peace even among a robber people.

At the point where Dr. Peters had finished his fruitful search for tablets, nearly three years before, the writer resumed active explorations on Mound X the 11th day of April 1893. In the spring of 1893, and the winter and spring of 1895, several thousand tablets were recovered from the ruins of this mound, which up to the present time has been most highly productive of inscribed tablets, some of which are of venerable antiquity. Several rooms of an ancient palace were explored and found to preserve the archives in the very position and arrangement in which they had been left when the building was destroyed.

In several instances, the tablets were placed on their edges reclining against each other like a shelf of leaning books in an ill kept library of today. In other instances, the tablets were found in great confusion, showing that at the time when they were buried they had fallen with the debris which covered them. There is good reason to believe that tablets were sometimes stored in a second story room, and were precipitated with the falling floor when its building fell into ruin from neglect, fire, or from wanton destruction, for all of which forms of decay there are abundant traces in different parts of the great mounds.

The tablets found in buildings destroyed by fire are generally well preserved owing to the results of the heat of the burning building, which process frequently baked the tablets most admirably. In buildings which fell into decay from neglect or collapsed in time of severe rain storm, the tablets, if unbaked, are generally found not only badly broken, but are frequently saturated with the salts of nitre, which chrysalize on drying and cause gradual disintegration of the tablet by the slow process of crumbling, and the more rapid flaking off of the surfaces of the unbaked tablet from the formation of crystals in the body of the tablet itself. Such tablets are difficult to manage, and even when legible, are disappointing from the fragmentary condition to decipher.

In time of severe and long continued storm in Babylonia, great numbers of houses collapse with frequent loss of property, and occasional loss of life. The rain percolates through the flat roof of earth, and enters the walls laid up in a mortar of clay, that easily dissolves as the rainwater filtrates through the interstices between the bricks, whether crude or burned.

In January 1896 so many houses in Hillah collapsed that parts of several streets were entirely blocked for considerable distances so that in passing to and fro, it was often necessary to make long detours frequently doubling the distance over the direct route. It is probable that buildings of the ancient cities roofed in the self same manner as the houses in Hillah today, frequently collapsed from the effects of percolating rain-water, and this in some small measure accounts for

the broken and crumbling condition of many unbaked tablets, and the evidences of such destruction to both houses and tablets are not wanting.

### Arab Laborers.

After a few months of exploration and the consequent training of our laborers, the efficiency of our workmen seemed to reach the limits of proper and reasonable endurance. Our basketmen were taken entirely from the neighboring Arabs. They were at first a wild, impudent, unruly and rebellious company, but by patience and kindness and a prompt dismissal of each offender and a firm hand at every point, those untutored children of the desert were gradually changed to the most obedient, willing, and active group of basketmen that have ever been gathered together in Mesopotamia.

To those who have seen these same wild people violently resist the efforts of their foremen to secure an average day's work, this will seem hardly credible, though it is literally true; and in a marked degree it shows the power of money, rightly employed, to do its legitimate work even in Babylonia and among the Afaj Arabs. These results have not been accomplished without a prolonged struggle followed by many of the tactics of the school room, with not a little of its wholesome discipline, and a suggestion of its moral influence, but its accomplishment shows the power of a strong moral purpose even with half savage people.

It has called into activity, and at times severely taxed all the patience, persistence, firmness, and resource at our command, and has often put us in temporary danger, although in the end it increases the general security of life and property for us among these people. Certain it is that greater outward respect is shown toward us, and the training of 100 men to render honest and efficient service for a set time each day for several months, will not be lost, I am sure, for at least one generation.

Not the least interesting feature of excavation work in the mounds at Niffer, is the long line of basketmen, wearily climbing the steep ascent from the court of the temple of Bel which contains more than sixty thousand cubic feet of earth, to the dumping place a distance of some 380 feet, and at the same time raising it to a height varying from a minimum of 50 to a maximum of 80 feet. The distance and height to which the earth is transported in basketfuls by this ancient method of unthinking human labor, is like that employed by King Sargon, and the innumerable hosts of his predecessors and successors have used the brute force of the multitude to build and destroy cities and habitations in their day and generation. The incline is steep; the climb wearisome, and the distance adds apparent weight to the burden borne at an expenditure of human muscle scantily nourished.

We may rest assured that the bulk of material which we are now removing, was brought hither from the plain below and around us, many thousand years ago, by the same shiftless and toilsome methods, which we find ourselves compelled to reverse in examination of the mound's anatomy. So far as details are seen, the picture presented is a living witness to the fact that neither methods of labor, nor habits of dress, have suffered change for thousands of years.

We now require a phonograph to prove that forms of salutation and speech, and habits of thought, suffer no change. We should then be driven to the logical conclusion that we employ the most ancient methods of labor, perpetuated without change by a people who want no change that is based on effort of mind or body. Nothing short of education and Christianity can awaken

and change the methods of thought inherited by these unprogressive and unlovely people; whose only willing contact with the modern world is the use of tobacco, coffee, the shotgun and coined money. Beyond these the only modern thing desired, is a repeating rifle. All other modern appliances are machinations, devices and snares of the Devil, to be contemptuously shunned, and bitterly hated as only ignorant, obstinate, tenacious, deluded fanatics can hate and despise a thing beyond their knowledge and comprehension.

Excavating is done in gangs. The chief of the gang wields a pick and is an expert excavator brought from Hillah. His immediate assistants fill the baskets with small hoes. Each such gang has a number of basket carriers, who bear their baskets on their hips with their hands under the basket, carrying it up and out of the excavation and emptying the earth on the heap of debris.

The pick and hoe are the only implements used in making the great trenches and tunnels, and the thousands of cubic yards of earth are removed outside of the site in small, round baskets.

No. 1 is the small pick (Kasmeh in Arabic), made of wrought iron, hammered out by hand, and fitted with a wooden handle.

No. 2 is the basket-filler's hoe, (Maharr in Arabic), which is also used to loosen earth that is not very compact, and to clean off surfaces. Like the pick it is made of iron, hand made, and fitted with a wooden handle.

No. 3 is the basket, (Zembeel in Arabic), used by the basket men to carry the earth from the excavation to the dump, often a wearisome climb up steps, or an incline rudely cut in the earth, up long slopes and out to the edge of the great sloping dump that always keeps growing longer and higher as the work progresses. The basket is usually made of a long, narrow band of plaited palm-leaf wound spirally and sewed so as to form a basket shape. Handles of the same fibre are firmly sewed to the sides and often the whole is bound around the edge with cloth to strengthen it, or a band of cloth sewed across the bottom to protect the laborers bare arm from the rough plaited palm. The method of raising the filled basket, is to grasp one handle, place the other hand under the basket on the opposite side, and sling it up on the back of the hip. Then the hand lets go of the handle, reaches under the basket and interlaces the fingers with the hand under the basket. In this way the basket is steadied while the weight is borne on the hip. These are rather rude tools, but admirably adapted for the use of our men who tread their toilsome way with their unwelcome burdens, vainly striving to earn a few piasters with which to discharge debt, or to hoard, not to spend in self-improvement.

Each Friday evening of the year, the weekly pay roll was tentatively made out and the payment of money made ready on the supposition that each laborer would be in his place on Saturday. Between the morning and evening of the following day, while superintending the work at the scene of excavation, the pay roll was adjusted and all hands required on Saturday evening to carry a brick to the castle. At the castle door the men by gangs formed in line. A tray containing the weeks wages in silver was brought out. The men by gangs filed past the paymaster who quickly distributed to every man his reward for his weeks toil, and each one went away happy for a day of enforced idleness to follow. Sunday was a day of rest at the castle and the workmen usually did their marketing on that day.

On Monday, the 16th. of July, 1894 the first serious accident, that had brought personal injury to any member of the present expedition, befell Ismail, a foreman of one of the gangs.

He was driving a tunnel along the northwestern facade of the lower platform of the early temple, cutting through the largest size of crude bricks  $13 \times 13 \times 9$  inches. In rivalry with other gangs, he had been doing magnificent work, and like many another had grown careless in the presence of a constant danger, that for a long time gives immunity to the bold man, he had paid too little attention to the vaulting of the tunnel, which requires the nicest adjustment of form where the arch has to be made, by cutting away from below the large and heavy sun-dried bricks, that are not even laid in lateral contact with each other.

Suddenly from the faulty vaulting, there fell several crude bricks and falling, caught Ismail, breaking both bones of the left leg about midway between the knee and ankle joint --- a favorable point for a novice to make his first attempt at setting the bones of a fracture.

A stretcher was hastily improvised; the fractured leg firmly bound in splints in the trench, and the patient removed to camp amid as much wailing as if the calm hero of the accident had died a lamentable death. The women of the camp gathered around and made the very earth tremble with the violence and vociferations of their lamentations. In their madness and frenzy, they cast themselves on the ground. They covered their heads with dust. They tore their hair and they beat their breasts in token of sorrow, and strong men wept with excitement.

As soon as Ismail could be made comfortable, in compliance with his expressed wish, a fleet footed messenger was dispatched for the native limp-setter, who, after he had examined the injured leg, assumed an air of great wisdom and importance, and pronouncing the splints rightly placed, called for additional bandages and a liberal amount of rice and egg---Heaven only knows what for.

Whenever left to themselves, the laborers would quarrel with each other, and only the authority of the paymaster, who had power to discharge and was known to use it whenever he wished, could control them. For this reason it did not seem prudent to leave the scene of excavation even for an hour. It has therefore been, and ever will be, I think, my policy to superintend in person, both work and workmen. I would never delegate it to an Oriental. Only an Occidental could maintain the discipline with firmness and fairness. The Oriental is tenacious and can be obstinate, and sometimes rigid, but he can no more unite kindness and firmness, or be uniformly just to friend and foe alike, than he can set the Euphrates on fire with his rude steel and flint. He can be many things in many places to fit times and occasions; but to unite kindness of heart, firmness of will, and steadiness of purpose, lies beyond his power of self-control, chiefly because it is beyond his knowledge of mental mechanics.

A foreman dares not press an unwilling gang except in the presence of the paymaster. In a time of unusual turmoil, an attempt was made by a reprovved workman and two of his relatives, to kill our most industrious and exacting foreman, as he was passing Shaheen's camp on his way to Suk-el-Afaj one Sunday morning. The attempt was unsuccessful only because the leveled flintlock missed fire, and before the attack could be renewed the foreman was rescued.

It was one of those hair-breadth escapes (*sic*) that are not infrequent in this region of intrigue and bloodshed, for two accomplices, seeing the gun miss fire, were rushing on the would-be victim as his armed friends behind him hastened to the rescue and saved his life.

On the fifth of January, one of our older workmen, named Sultan was summarily discharged from our service for crookedness, in concealing small antiquities, and the vacancy filled by promoting a more efficient man in his stead.

Six weeks later another foreman, named Ismail, was quickly discharged for resorting to the same sly methods that had caused the dismissal of his fore-runner Sultan. Both of these men had been corrupted by Mahmoud Effendi. The expedition had long wanted to be rid of Ismail, believing him to be dishonest; but, until the day of his dismissal, could find no certain proof of the suspicions entertained against him, and patiently bided its time.

Later a stone seal was found in a basket of earth by a basket carrier, who quickly and deftly secreted it in his mouth, and in a short time removed it to his kerchief, covering his head, tying it in the corner of the same. In this last act he was detected by the foreman of the gang. The seal was recovered under circumstances, which robbed it of its greatest interest and value, but the workman was discharged on the spot and at the moment of the recovery of the object.

The most serious accident that befell us at Niffer was the instant burial of two workmen under three feet of earth. It happened on the 11th. of March, 1895. Contrary to orders a certain foreman and his gang of assistants, Khalaff-el-Dash and his brother Gulli, in search of cuneiform tablets, had undermined a great mass of earth in one side of a deep trench. Without an instant's warning, the great mass of earth fell, and like the billows of the sea, closed over the bodies of the two unfortunate men leaving no trace of them. The falling mass had also caught a basketman several feet distant and pinioned him securely against a wall of burned brick. He was buried to his breast and had to be dug out; but to our everlasting joy, he was not seriously hurt. All hands were quickly called to dig out of their prison the two buried men. Like Arab fiends they worked with might and main, and with loud shouting encouraged and drove each other on. Within the space of half an hour after the accident, the unconscious form of the foreman was found, and being restored to the air, slowly revived.

He had been thrown by the avalanch of earth into a sitting position. The head was bent forward and downward, leaving a little breathing space below the downturned face. After the earth had covered him, he consciously breathed by quick suffocating respirations, and heard the people at work above him for a little time, and then lost consciousness, and, when found, gave no evidence that he would breathe again. His brother, Gulli, had been thrown at full length by the falling earth and had been so covered as to leave no air space about the face and he probably died immediately from suffocation.

Khalaff received no special bruises from the falling earth and aside from a few scalp wounds made by the tools in the work of rescue, sustained no fractures and apparently suffered no very great harm beyond the nervous shock. He is now doing well. His unfortunate brother Gulli, left an orphan, about two years of age. The mother of his child was murdered by a kinsman at Niffer in June 1894. The support of the child, therefore, fell upon Khalaff. In a double sense, the

expedition felt morally bound to do something for the orphan, and yet not relieve Khalaff from the responsibility of providing for his brother's child, according to the unwritten law of his people. After much thought, I gave Khalaff 5 liras, equal to \$22, enjoining him to provide for the child as well as he could in all ways, to which he agreed with a depth of feeling and tenderness that was quite touching.

A funeral train made up of picked workmen, were sent to bury the body in a consecrated spot of sepulture on the bank of the Euphrates. The sad affair cast a deep and dark shadow over our work at a time of great perplexity and approaching danger from Ahmed Bey, who was actively plotting mischief for us.

It was at the time very easy to see that if the victims of the accident had been from the Arabs round about us, serious consequences would have followed as soon as the people could have gathered, and even before the victims were recovered from the fall of earth a considerable crowd had collected, but the two victims completely buried, being Hillah men, the excitement quickly subsided. The basketman, whose lower parts were buried was fortunately unhurt and immediate trouble was thus providentially averted. All our basketmen except two are from among the surrounding Arabs. These behaved well under the trial.

It is generally known among the workmen that the foreman Khalaff was doing what he had been expressly forbidden to do in undermining the side of a deep trench. Khalaff well knew this, and his only feeling toward us now is that of profound gratitude.

After the accident, work was discontinued for the day, to be resumed on the following morning.

Since leaving Niffer, it has gratified me to hear from different sources that no such faithful and efficient labor has ever been secured in excavation, as we secured during the last six months at Niffer, and what is to our decided advantage, the choicest workmen swear an oath that they will work for no one else when we are in the field. They have caught something of the spirit of personal devotion that our steward caught several years ago, and which suffers no loss by lapse of time. I am therefore pleased with our workmen and gratified with their devotion.

It may be of interest to mention a very few of the superstitions which makes slaves of these ignorant, obstinate people about us.

The owl, in Babylonia, where no forest exists, naturally seeks the shelter of some deserted ruin, or conceals himself by day in some dark cave. The doleful bird generally finds some ruined habitation to screen him from the full rays of a blinding sun and takes prompt possession of it. This habit of the bird, in choosing the best shelter to be found for his daytime abode has given rise to the belief that the bird will cause ruin wherever he goes.

One morning a very small boy, with very large eyes and very little breath with which to speak, brought to our tunnel where we were writing, one of these ill-omened birds which he had captured alive. We took it and sent it to the castle to be cared for much to the dismay of Saleh Effendi, our worthy commissioner, who with loud moanings and dire protestations wisely predicted that the castle would surely be a ruin within a year.

This is not more singular than the belief, which is equally well founded, that the scent of soap will drive the buffalo mad, or the smell of grease will kill the beautiful gazelle, or that the fumes of camphor, be they ever so mild, will cause a child to sicken, waste and die.

These people believe that hidden somewhere in the mounds of Niffer, is a great boat made of gold, but the story teller wisely adds that it is guarded by a big black serpent so that no one can find it.

The common tape line with which our measurements are made is by our workmen regarded as an infernal machine of some sort, which is supposed to fly out and indicate to us the places of hidden treasures, and buried antiquities.

One old fellow tells the story that one night he came to the castle with the intention of robbery but lo! when he had reached the place, the magicians of white people had caused the castle to disappear and it could not be found.

Even our friend Haji Tarfa, to whom belongs the proud distinction of being able to read and write, tells us that in the great marsh not far removed from our castle, is an ancient ruin, around which lies great quantities of gold and silver, but whosoever attempts to pick up a piece thereof, is immediately bereft of his senses, and wanders around forever after in an aimless bewildered way.



## SEPULCHRES and BURIAL CUSTOMS at NIFFER.

The burial customs of any of the great civilized nations of antiquity, together with the habits of dress, ornaments and implements found in the graves, become most valuable adjuncts to the study of history and the development of the useful arts.

No necropolis, or place of burial has yet been found within or near the mounds of Niffer. Whether this is owing to the fact that our investigations have been chiefly confined to the larger mounds, and the architectural ruins of the ancient city, or whether in the earliest times, as among the neighboring Arabs of today, the dead were transported for burial to some sacred necropolis at a distance from Niffer, are questions which cannot be answered with authority, at this time.

Within a radius of five miles towards the northwest, the north and northeast of the temple of Bel, are several low inconspicuous mounds, which are known to contain ancient graves. It is not, however, known whether those burials were made on the sites of deserted villages, or in places chosen and used exclusively for sepulture. They have not been sufficiently examined to disclose their origin and history. The Arabs have opened a number of graves in those mounds with such implements as daggers, spear-heads, and hatchets. Beads, vases and occasional ornaments of gold are reported to have been found. The blue enamelled sarcophagus is also found there, and this leads to the conclusion that those selfsame mounds were used simultaneously with the larger mounds of Niffer for burial. This conclusion is naturally followed by the conjecture that the outlying mounds, like the mounds of the metropolis, were the sites of villages appropriated for burial, either while they were still used for dwelling places, or after they had ceased to be inhabited.

Nearly all of the six hundred graves opened by me in the mounds of Niffer were made either in the dwellings occupied by families, or on the deserted slopes of the mounds and in unoccupied parts of the inhabited city. In all ages of the history of this venerable city, from the time of Sargon the Great until the Jewish occupancy of the city in the early centuries of our own era, it was customary to bury the dead in the habitations of the living. In the earthen floors of the living rooms, and parallel to their nearest walls, shallow graves were dug and refilled with the earth that had been removed therefrom. The direction of the grave was unvariably determined by the orientation of the house, which enshrined it, and not by some fixed point of the compass, nor by the direction of some distant and sacred shrine as Mecca or Jerusalem. The graves at Niffer, therefore, pointed in every possible direction, like the graves in a moslem cemetery.

In several instances a single burial was made near the center of a small room undoubtedly used as a shop by some petty tradesman, whose bones finally crumbled to dust under the very spot his feet had trodden at his daily task in his life time, where too, perhaps, his weary body had found rest at night on a humble mattress or a single blanket; as multitudes of shopmen in the leading cities of Turkey to this day live, eat, sleep and trade within the narrow walls of a single room, often only a stall. Hundreds of the humbler tradesmen in Old Stamboul (Turkish quarters of Constantinople) have left their families in their native cities and villages in the distant parts of the Turkish empire, and for the sake of gaining riches to spend elsewhere, have gone to the capital for a period of five, ten, fifteen, or twenty years, with no social ties, cooking their own

frugal dinner at nightfall on a brasier of charcoal; live, eat, sleep, trade, and sometimes die within the confines of a narrow shop. The custom is very ancient and doubtless prevailed at Niffer in very early times, perhaps from the beginning of trade, as it exists in the cities and marts of Babylonia to this day.

At a depth of 83 feet beneath the top of Mound 1, a grave was found to have been made within the walls of a room of unknown use. It may have been a living room, or it may have been a tradesman's shop; we do not know. It is, however, probable that the very room which has for several thousands of years been the abode of the dead, had also, for a little while previously been the habitation of the deceased; over whose decaying bones eighty-three feet of successive accumulations had gathered from the constant changes of building and decay, while hundreds of generations of men had trodden the streets above his silent grave, and gone to their long last rest in sepulchers unknown to us. The grave was made of sundried bricks and is the oldest grave that has yet been found at Niffer. It is probably the oldest grave that has been found in the "Land of Shinah (*sic*)". No certain clue to its great age was found, yet there can be little doubt that it antedates the time of Sargon by at least several hundred years, and probably belongs to about the time of the archaic arch discovered in a different mound within the sacred enclosure of the temple of Bel. The grave was made of crude or sun dried bricks about 17 in. square and 4 in. thick. Three courses of bricks made the sides of the long narrow cell which was 5 ft. 9 in. long; 1 ft 7 in. wide; and 1 ft 1 in. high or deep. The grave was covered by a gable roof made of the same bricks resting on the sides of the grave, and meeting in an imaginary ridge-pole like the letter A. In the grave was the crumbling skeleton of a medium sized adult, beyond question a man's skeleton, and a broken vessel of coarse pottery. There were no ornaments, and the clothing had been absorbed in the earth, so also had the softer bones disappeared by the slow process of oxidation. The harder portions of the bones alone remained. The sutures of the cranium and the condition of the teeth showed that death had taken place at about middle age, or soon after the zenith of physical life had been attained. The bones, except the teeth, quickly crumbled into dust on exposure to fresh air and handling. Nothing abnormal in the form or size was noticed. Graves of the same construction were also made in much later times.

The next oldest grave can be approximately dated, and belongs to the era of the great and mighty Sargon. It was an ordinary household jar, 2 ft 8 in. in height, appropriated for burial, and it contained the partially decomposed skeleton of a child, together with several animal bones, and several small vases of different forms. The bones have been scrupulously saved. The skeleton is by no means complete; even parts of the skull are decayed. Many of the bones are however preserved. The cause of the partial decomposition of the bones is the fact that a quantity of earth had sifted into the vase and covering the bones had oxidized and partially absorbed them.

In examining graves at Niffer, it has been observed that when ever, from any cause, earth has fallen into the grave and covered the bones, that decomposition of the bones has generally taken place, and that on the other hand, in graves that had remained dry and free from infalling earth, the bones have generally been well preserved. The texture of the grave clothes is sometimes shown, so also the position of the body in its last resting place. From such graves, of which the

proportion is small indeed, have been gathered some of the firmer remnants of grave clothes, and they form an interesting study of fabrics and textures of ancient times.

In the slipper, bath-tub, and box coffins the lids being made of burned clay, have generally been crushed by the superincumbent weight of the earth above them, and have therefore themselves become filled with earth, causing a more or less complete destruction of the skeletons. This fact makes the collection of skeletons and even skulls difficult. In the present instance the fragmentary skeleton is preserved in the hope that its great antiquity will make it valuable for the purpose of comparative ethnology. This burial is also interesting as showing the depth of ancient burials, which, in this instance, was two feet or less. The top of this vase was two feet below the bottom of the massive and venerable platform of that prince of builders Ur Gur, and therefore could not have been more than two feet deep, while it may have been covered less deeply. This confirms an opinion long entertained by me on the shallowness of ancient burials in Babylonia. The Modern custom of shallow burials, in a land where customs never change, seems to be the heritage of high antiquity. At the present time bodies are frequently buried at a depth of less than two feet. There is no proof that the freshly discovered jar was buried two feet. We only know that it was not buried deeper, and therefore assume that it may have been buried to the depth of two feet.

During the cholera scourge in Baghdad in the summer of 1889, many victims of the dreaded disease were buried in the basements or summer living rooms of the houses where they died. After many inquiries respecting the depth of those domestic burials, it became clear that the deepest burials were very shallow, and that the average depth of burial did not exceed one foot. The majority of the victims being Moslems, were temporarily buried by the relatives in the family living rooms, and in winter were removed to the sacred shrines at Kerbella, Nejiff and Kathmain. It is however probable that a permanent burial would not have been made much deeper than these temporary burials, which were made in the heat of the Babylonian summer, for at least several months of decomposing change.

At Kerbella, Nejiff and Kathmain, it is said that the deepest burials are very shallow, the bodies being thinly covered with earth.

The variety of coffins found at Niffer is very great. There were coffins made of palm-wood and coffins made of terra cotta or burned clay. There were graves made of bricks both burned and sun dried, and there were large brick vaults containing several skeletons mingled in confusion. Bodies were also placed in caskets of wicker work, and even wrapped in reed mats. Occasionally skeletons are found embedded in the earth with no trace of an enveloping coffin or shroud of any kind. Notwithstanding a variety and diversity of coffins at Niffer, more than nine-tenths of all the graves that have been opened are of terra cotta. The terra cotta coffins are of remarkable diversity of form and finish.

Of all the terra cotta coffins the most elaborate is the sarcophagus, or the so called slipper coffin which has nowhere been found of very high and undisputed antiquity. It has been regarded to be of Parthian origin and was more commonly used, so far as indications go, in Parthian and Sassanian times than at any other known period of history.

It is difficult to collect satisfactory data to fix the time of the adoption of this style of coffin in Babylonia, yet I cannot doubt but that this type of coffin, which was so highly embellished in color, mould, and enamel, during the Parthian ascendancy was used in a plainer form and finish in Babylonia long before the Parthian conquest of the country, and I still hope to obtain indisputable proof on the point. The plain glazed sarcophagus was undoubtedly used for at least several centuries before the richly moulded and beautifully enamelled sarcophagus of Parthian times attained its perfection in ornamentation and coloring. The plain gray-colored sarcophagi are far more numerous than the glazed and decorated coffins and continued to be used as long as the enamelled sarcophagus was used.

The Babylonian sarcophagus from its resemblance to a gentleman's slipper has been styled the slipper-shaped coffin. It is made of a pale straw-colored paste of clay mixed with straw, and perhaps owing to the scarcity of fuel, was imperfectly baked, and became very brittle through lapse of time and oxidation in the destroying earth.

At its head was a large oval aperture for the introduction of the body. The aperture was closed with a lid of earthenware sometimes plain, sometimes rudely ornamented with fingermarks, and in one instance decorated with a rude lion's form in low relief.

A small opening at the foot probably served for the insertion of the hand, or a rope fastened to the feet, by which the lower extremities could be drawn into their place in the narrow cylindrical body of the coffin, into which the feet and legs could not be forced from above, in case of such fragile material as those half baked coffins, without destruction to the coffin.

The inner surface of the sarcophagus shows the impression of the frame or form of reed matting on which the coffin was fashioned.

One of these slipper shaped coffins possesses the most perfect beauty of form about the head that I have ever seen in any of these coffins. In fact, every line and curve from head to foot is full of grace and beauty, a delight to the eye and a conscious joy to the aesthetic nature and though it is broken away somewhat at the foot, its simple beauty compelled me to preserve it for the instruction and delight of many others.

The enamelled sarcophagus, which was usually decorated with four panels, marked with elaborate borders of twisted rope and rosette ornament, was allowed to dry, and afterwards received its final decoration by the addition of a stamped figure of the human form in high relief to each panel.

The coffin was then stood on end, generally the head, as shown by streaks and the flow of the glazing paste, and in this position it was baked. The color of the enamel was blue, but after long burial in the earth quickly fades to a bluish green, on exposure to sunlight and heat. One gray sarcophagus, decorated with the same male figure, with sword and short tunic over a long shirt, four times repeated in as many panels, contained the skeleton of a man as shown by the accompaniment of dagger-blade of corroded metal, apparently bronze. Besides the weapon, only the skeleton, a vase for water, with a drinking-bowl inverted over its mouth, and a shallow

bowl containing date stones, and other decomposed remnants of food, were found in this sarcophagus. The occupant of the grave was plainly a man.

A richly ornamented sarcophagus, finished in blue enamel and decorated with six human-headed bulls in two long narrow panels contained the partially decomposed skeleton of a large man. That the body was the body of a man was shown by the oxidized remnants of a broken weapon, and the lack of female ornaments.

The human-headed bulls, which adorned the exterior of the coffin, are a perfect representation, as seen in front, of the monuments found by Layard at Nineveh, and evidently belong to a period of strong Assyrian influence in Babylonia. Aside from its unique figures, this sarcophagus is perhaps the richest and finest in its general decoration of all the sarcophagi that have been discovered at Niffer.

Aside from the two sarcophagi whose decorations and contents show them to be the graves of men, no sarcophagus decorated with the human male figure has been found, while sixty-two blue enameled sarcophagi decorated with female figures in human form, have been found and examined by me, and in nearly all of these sarcophagi some remnant of female adornment, as jewelry, beads, bracelets, bangles, or implements for sewing, spinning, embroidery, etc. were found to indicate the sex, thus showing that the external decoration of the coffin was a trustworthy indication of the sex of the grave's occupant.

One yellowish-white sarcophagus, decorated with four female figures, set in four separate panels, contained articles of a woman's jewelry. Sixty-three sarcophagi, decorated with the female form, and containing some ornament of woman's wear, or some implement for her handiwork, clearly prove that the sarcophagi, decorated with the female figure, were in every known case used for the burial of women. Men of the same period were generally buried in the plain gray or unenamelled sarcophagi. Women were also sometimes buried in the plain gray sarcophagi. As a monument in the history of funerary architecture and art, these sarcophagi will be of inestimable value to the earnest student for all future generations of men.

It seems to be true that the unenamelled clay-colored sarcophagi, whether plain or decorated with rope ornaments or simple beading, were used without distinction of sex before the art of glazing was applied to sepulchral decoration, and therefore that this particular form of coffin was used in Babylonia before the glaze or enamel was applied to their decoration in Parthian times.

While it must be confessed that at Niffer there has been found no sarcophagus, or so-called slipper coffin, which can be assigned to a fixed date of great antiquity, yet we know that in many instances plain gray sarcophagi, lying several feet directly below enamelled coffins, were of considerably earlier date than the better known enamelled sarcophagus of Parthian and Sassanian times.

Next to the more elaborate sarcophagus in point of interest was a form of clay coffin, which from its resemblance to a bath tub, we may call the bath-tub coffin.

In shape it is a box with one end rounded, while the other end has square corners. Unlike a bath-tub, its rounded end does not incline upward, but is vertical. Though they differed greatly

in size, the average bath-tub coffin was less than four feet long, about two feet deep, and from fifteen to eighteen inches wide. It received its corpse with the lower extremities treated like a folding door, with hinges at hip and knee. This form of coffin is of high antiquity.

The lid of the bath-tub coffin was sometimes made of plain gray earthenware like the coffin itself. Lids for the coffins were however often made of palmwood, and in more than one instance, were found to have been made of reed matting, as was clearly proved by the imprint of the wood's fibre, and of the matting on the under side of the water-hardened clay that once pressed upon those temporary lids of wood and mats.

The perishable wood and matting had long since decayed and sifted their ashes over the rotting bones, while the covering earth grown compact and sodden through pressure and lapse of time, still preserved in minutest detail the structure and fibre of the rough hewn wood, and the same coarse matting, which the marsh dwelling Arabs of Babylonia weave to this day.

Before it was used for burial, one bath-tub coffin was broken and bound with many coils of the same kind of rope which the Arabs make at the present time, from the leaves of the date-palm. It was afterwards besmeared with bitumen to keep the rope in place, and preserve it. The rope has entirely disappeared, but the bitumen, in which it was embedded, has preserved its imprint, and shows its twist, and the structure of its fibre in minutest detail.

At the head of one bath-tub coffin belonging apparently to the sixth or seventh century before the beginning of our era, were found three jars containing articles of jewelry and clothing. They appear to have been the property of a jeweler, and to have contained many articles of great value, such as pearls, precious stones, necklaces, earrings, and nose rings, and rings for the fingers, seal cylinders, linen and woollen stuffs of coarse and fine texture.

There were 17 seal cylinders of medium and small size, only one of them containing three lines of inscription was inscribed at all. One cylinder, of red jasper, still retains its bronze mounting.

A. is a nose ring, mounting five pearls, one of which crumbled into many pieces on exposure to air and handling. Many pearls, some of them of great size and value had crumbled in the jars, others fell to pieces when removed. Only the four belonging to the nose ring are left to the excavator's care.

B. shows a pendant and several beads of the class of low grade amethysts, jaspers and agates.

C. is a pierced pyramid of dark brown hematite 3/4 inch long with three skeleton-like human figures, an ox and several curious symbols.

D. is a collection of low grade agates amethysts, jaspers and carnelians.

E. is a dark brown hematite pendant showing a mounting in bronze.

G.G. Several Egyptian scarabeii.

H. is a pair of iron tweezers, possibly for jeweler's use.

J. is a red jasper cylinder. It is engraved with two winged human-headed lions, placed back to back, and rampant toward a four-winged diety. The mounting is of bronze, and was found still connected with the cylinder, but unfortunately broken off afterwards. The lower end shows the pivot still in the hole. As there appears to be a shoulder left on the pivot (although it may be oxide) the round collar below the ring seems to be in position as seen in the sketch.

K. is a bronze bracelet.

L. is a duck, possibly of chalcedony, pierced to be suspended as a pendant.

M. is a carnelian, showing a headless human figure in a sitting posture.

N. is a small tear(?) vase of good form, fine texture, and excellent workmanship. Three of these beautiful little vases were found in two of the jars.

F.F. are of bronze and in form resemble brooches. They seem however, to have been earrings in proof of which two exactly alike were clasped together. There are 28 of them in sound condition and several in a more or less fragmentary state. The woven fabrics are so completely decomposed that only a residue of extremely light ashes, which a puff of wind might carry away, remains, but this is enough to show the structure and fibre of the fabrics which clearly show the warp and the woof, the twist of the wool, and the linen thread, and the color of the woven fabrics which are now creamy white and dark brown and such appears to have been their original color. The earrings were wrapped in linen and this is shown by the fibre of the linen still adhering to several of the corroded metal earrings.

Immediately above this coffin near the surface, were found two beautiful blue bottles of glass of extreme thinness and lightness belonging to Arab times. It is a marvel that they should have remained in sound condition so long and perhaps a greater marvel that they should have been seen and rescued by the pickman, who was with vigor and apparent recklessness cutting through the soft earth, for they are as thin as a chemist's beaker and without protection were covered by the layers of earth which threatened to crush them while it preserved them from destruction.

The box coffin differs from the bath-tub coffin in two respects first, its corners are generally square, and second, its height and width as compared with the bath-tub coffin are reversed, the length of the two types being about the same. The box coffin was about two feet wide and fifteen inches deep, and best accomadated its occupant by placing it on one side and folding the knees as in the bath-tub coffin, which received its guest lying on the back with its knees drawn upward toward the lid.

The evident reason for this diversity of arrangement of the bodies is found in the different form of the coffins. In the box coffin the width is greater than the depth, while the depth of the bath-tub coffin exceeds its width, the two somewhat similar types being of about the same length, and the depth of either being about identical with the width of the other.

The box coffins were often without lids, and were then inverted over their occupant. In one instance a box coffin was inverted over the body of a medium sized woman, placed on a mat in

the bottom of the grave. The coffin was three feet ten inches long, two feet wide, and one foot three inches deep.

To adapt the body to the dimensions of the rude coffin, it was laid on the left side and the knees were sufficiently drawn forward and upward towards the chin to bring the extremities within the short coffin.

Since no earth had fallen into this coffin, the skeleton with fragments of the grave clothes lying in folds over the bones was easily traced. The clothing was an outer garment of woolen material woven like the coarse abba worn by the Arabs today; the inner garment was linen. The head was swathed in woven fabrics, and the feet were probably bare in this and all other graves.

Toward the foot of the coffin was a well-made work-basket of some stiff grass. Its lid was fastened by three woolen cords ending in neat tassels, and tied in the lover's knot. (double bow knot)

The basket contained the blue enamelled vases of graceful form and a long bronze hook not unlike a modern crochet needle, for knitting loose fabrics, of which beautiful fringed and tasseled specimens were found in jars placed at the head of other graves, in which the same implement was also found to testify to the use of the corroded implement in the grave under consideration. Several bronze hooks of similar form were found in other graves of women.

The Jewish casket was another distinct form of coffin. It was a simple shallow box, rounded at both ends, without decoration of any kind, and open from end to end. Its average length was six feet, its breadth and depth respectively fifteen and six inches inside the measurement. Its lid was composed of two pieces of terra cotta joining in the middle of the coffin's length. The lid had an upward curvature of about six inches, thus doubling the available depth of the shallow coffin.

In several instances brick vaults were built about these caskets to protect their weak lids from collapse, and then the earthen vessels, containing food and drink, were placed outside the casket within the brick vault.

A cuneiform tablet of the Persian period, with a line of Hebrew scratched on its edge, was placed over one of the enclosed caskets, leading to the final conclusion that this form of coffin was of Jewish origin, and as far as our discoveries go, this form was used by the Jews alone.

Another type of terra cotta coffin, in the form of an elliptical soup-tureen, is occasionally found at Niffer. Some of them are round bottomed: some have a foot to rest upon. The rim is elliptical in form. Their major and minor axes average about three and a half and two and a quarter feet respectively. So far as reliable traces have been found, these coffins had lids of palmwood, which has perished.

The bread-tray coffin was used at Niffer for the burial of infants. In form it was like an old-fashioned bread tray, having a flat bottom of elliptical form, and gently sloping sides about five inches high. Its major axis was about twenty-two inches. Lids of terra cotta covered the little bread-tray coffins.



Various forms of household vases, such as wine and oil jars, storage vases, and water firkins were often used for sepulture both in very early and very late times, and indeed in all ages. They seem to have been generally used by the poorer classes. Adult skeletons are frequently found in jars so small that the body could only have been introduced into the jar piecemeal after dismemberment.

Sometimes the large, wide-mouthed burial urns of the same size were placed end to end and sealed with bitumen or clay so that the enclosed body lay in a horizontal position. This is a very ancient form of burial.

In an ancient grave twenty feet below the floor of a Jewish house, still adhering to a man's skull, was distinctly observed a lock of hair, colored with henna, as is customary among the Arabs, and with the Persians of today, who worship at the shrines of Kerbella and Nejeff, sacred to the Shiite Moslems. Kerbella is about eighty and Nejeff sixty miles from Niffer.

It is interesting to notice that the pilgrim to Kerbella, and Nejeff, in Babylonia, perpetuates the custom of dying the hair and beard as practiced by the devotees to Bel's most sacred shrine in the early ages of unwritten history.

Like many other tenacious customs, this custom in that part of the world, where no change ever comes, is undoubtedly as old as the hoary mounds at Niffer, and as undying as the prejudices of the human race.

Not only do customs remain unchanged through the changing centuries, but the ornaments used by the middle and poorer classes four thousand years ago and more, are of precisely the same character as the Arabs of Babylonia used to adorn their persons with to this day, as is abundantly shown by the articles of personal adornment which are still found preserved in the ancient graves of the ancient Nippur.

### The Crescent.

A lamp of bronze and a bronze crescent closely resembling the crescent of brass worn at the throat by cavalymen in the Turkish army of today, were found in a grave of unknown date. The crescent was pierced by two holes, by which it was fastened in place to the collar of the coat or outer garment.

Both crescent and lamp were found together with three broken tablets in a small vase near the decayed bones as mentioned above. There can therefore be little doubt that those articles were placed by pious hands in the grave of some one, who, in the unknown ages of past history, died and was buried at the ancient Nippur.

Though it is incapable of definite proof; yet it is not improbable that those were the relics of some loyal soldier of the country, nor is it impossible that the use of the crescent as a military emblem, was appropriated, or perhaps inherited from the primitive inhabitants of the land, over which the colony of Byzantium, extended her sway and again transmitted in regular succession, not through ties of blood, but to the bloody conquerors of the land, where it originated.

Likewise, the double-headed eagle, which was for a long time regarded as the bold creation of the Byzantium artist, has only recently been discovered to exist in two instances on the prehistoric monuments of Asia Minor, which are now ascribed to the Hittites, from whom the ancient Byzantines through intermediate sources may have borrowed the emblem to transmit it to others with no thought of claiming it as their own creation.

There is nothing to prove a high antiquity for the grave. It may or it may not antedate the beginning of our own era. Its position at a low level determines nothing of value to know, for it was placed in the border of a mound, near the level of the plain, where it might have been made at any time since the building of the mound until the present time.

Whether the crescent came from Byzantium or elsewhere it is probable that it never ceased to be used as a sacred emblem or as an ensign of civil and military authority in Babylonia which I believe to be its true home. On all great occasions both religious and secular, it is used today either in connection with the star or without it. In purely religious ceremonies the star is generally wanting.

## Ramazan.

Ramazan or Ramadan, the great annual feast of the Mohammedan world, is observed through the entire 29 or 30 days of the sacred month of the Mohammedan calendar. The fast, which corresponds to Lent in the Christian world, begins each morning at day-break and ends at sunset. During the day all able bodied and healthy persons are forbidden by religious law to eat, drink, smoke or indulge in any pleasure. Since the months are measured by lunar time, it happens that each month begins and ends in each successive year eleven days earlier than it began and ended in the preceding year. Hence, in thirty-three years time, any given month or festival of the Mohammedans year, makes a complete backward cycle of the seasons. When Ramazan falls in winter time, the fast is easily borne, but when it occurs in mid-summer, laboring people suffer great inconvenience and yet the laboring people observe the fast more scrupulously than the wealthier and idle classes. Only sick people and travellers are exempt from observing the fast.

Our laborers, worked as usual through the month of Ramazan neither eating, drinking, nor smoking and the standard of efficient labor was maintained with no loss in quantity or quality of service for full ten hours each day. The weaker men would show evidences of faintness, at night, but the stronger ones betrayed no sign of exhaustion; yet it was sometimes plain to see that pride assumed a show of indifference to weariness, and their patient endurance of toil, heat, hunger and thirst, all at the same time without a murmur of complaint, was sometimes glorious to behold. Peevish natures were more quarrelsome than usual during the fast, while the more earnest ones exercised more than usual patience and charity under trial.

On the appearance of the new moon, which marks the beginning of the succeeding month, the fast is broken and the following day is given to festivity and rejoicing. The festival is called "Bairam" and was doubtless instituted to imitate Easter. It should continue only for a day, but is frequently prolonged to a second or third by common consent, not officially.

On that day, congratulations on the successful accomplishment of the sacred fast are exchanged by Moslems and are paid by Jews and Christians on Mohammedan officials, and their friends, among Mohammedans.

Forty days after the completion of Ramazan, occurs the great religious festival of the Mohammedan year, called "Kourban Bairam" which means the "Festival of the Sacrifices." It falls on the tenth day of the month, called Zi-l-hijje, in the Mohammedan calendar, and this date corresponds to the 4th. of June of our era.

By the annual slaying of sheep, it commemorates the sacrifice of the lamb, substituted by the Almighty, offered by Abraham on Mt. Moriah, in place of his son Isaac. For this sacrifice, the males of the flock, the fatlings two years old, and without blemish, are slain. All good Moslems of means sufficient to raise or buy a fatling, are required by custom, and by religious practice, to slay one or more unblemished male fatlings as an act of piety and faith. The flesh is not burned, but in excess of family needs for the festival day, is given to the poor, and in this manner shows the nature of the sacrifice, as practiced even to this day by the Mohammedans.

Being as much a matter of custom as religion, and calling for no special rite or ceremony of faith or practice, beyond the feeling of gratitude, which each one may express in his own way to the Giver of all good things, for the countless mercies he receives from above, this is a matter in which I, though born in Puritan New England, and descended from Roger Williams, can and do respond to the custom of the land.

For the third time in three consecutive years has the expedition slain two, three and four sheep at one time to meet (*sic*) out in proper measure to the foremen, and assistant foremen of our gangs, a feast day morsel, while each basket-carrier received a present of one day's wages, in cash, in place of the feast we could not easily provide for such a multitude. The foremen and their assistants from Hillah, rendering extra services on all occasions of need, received full wages on the holidays as at other times, and by this treatment the expedition lost nothing in a pecuniary way, while in good will and devotion it gained much in many ways.

After the gifts had been made and the festival salutations received, a band of women and children came to the castle where they performed a dance accompanied by one of their characteristic songs, with clapping of hands. They were dressed in their holiday clothes, bright reds and greens among unfaded black robes. The colors were for the most part bound around the heads, but some of the children were rainbow hued all over.

We were soon ready to start on our ceremonial visits to the sheikhs. As we went through the court of the castle, the workmen had assembled and offered their good wishes for the day. We walked across the plain to the west of the castle, past the low dusty mounds that are supposed to mark the site of the Necropolis, to a point near where we had landed on our arrival from Hillah. Here we found one of the little native boats waiting to convey us through the marshes. These boats are made by fastening rolls of reeds closely to ribs made of tree twigs, bound in bundles. No nails are used, but everything is fastened together with cords and thongs of palm-leaf. Over the entire outside is spread bitumen until it makes the little craft water-proof. We crossed the great marsh and soon reached the domain of Hamid-el-Birjud. We were conducted to the guest-house --- a long tunnel-like apartment built of reeds in the same way as our workmen's houses, by no (*sic*) means of large arches, made by binding together two bundles of reeds and bringing the ends to the ground, and then covering all by means of reed mats. These mats are made by splitting reeds and spreading them out to form a thin flat band about an inch or an inch and a half wide. A number of these bands successively woven into this woof by passing under, then over each adjoining band or two. When the edge is reached, the ends are turned under and woven among themselves. The floor is covered with mats and rugs, laid down where the visitors sit in long lines, while the Sheikh occupies a more prominent position. Being guests of honor, we were invited to sit on mattresses and pillows covered with brilliant colored calicoes made in Manchester for the Arab market, or native woolen cloth in interesting patterns of great antiquity. Near the door stood a couple of large water jars or firkins in frames, and in the center of the room was a large fire-place with many pots of coffee. When a visitor arrives, if he is an Arab and worthy of honor, he kisses the Sheikh on the lips or cheek, then on the right shoulder. Europeans are taken by the hand, and the hand offered is afterwards carried to the breast and forehead. When seated, coffee is offered to the guest a small spoonful of bitter, unsweetened

coffee mingled with myrrh, in a little blue and ornamented gilt cup, made in Vienna to suit the Arab taste. This is repeated two or three times in quick succession. Conversation is carried on to a limited extent. Most of the guests sit without saying anything, perhaps smoking cigarettes. Although the Sheikh himself smokes almost continually he does not offer cigarettes to his guests. At Sheikh Hamid's we were offered a dish of rice cooked in milk, served with melted butter and sugar --- a very palatable dish and served in a large, white ornamented bowl. We were furnished with tin spoons, evidently quite new, and perhaps purchased in anticipation of our visit, which terminated in about one hour.

At Sheikh Abud-el-Hamid's, the next place we visited, the guest house and fittings were newer and better. Here we were also offered food, but declined. A bowl of boiled mutton and a dish of rice were placed before the Sheikh, who bared his right arm, above the elbow, washed his right hand, and seated himself on the floor with his simple feast before him. Alternately he tore bits of meat from the bones, or rolling bits of rice into balls, he placed them in his mouth with his fingers, for like all true Arabs, he disdains the use of knives, forks and spoons. When he had finished --- he ate from the same dish with one of his favored guests --- the bowls were passed down to the lower orders who soon dispatched the contents.

Abud-el-Hamid is a man of perhaps 48 years, large in frame and heavy of build, with a determined look that hints at the ability that has won him the presidency of five sub-tribes of Arabs. Both Abud-el-Hamid and Hamid-el-Birjud came all of the way to our boat landing to see us on our way.

It was a long distance through narrow creeks and channels to Haji Tarfa's domain. We were now in the heart of the great marsh which makes islands of all these places, now well filled with water but in the dry season, a pestilential mud-bed full of decaying plants and the source of poisonous winds. The wind blew over the marsh and gave the air a pleasant freshness quite unlike the hot blast we have on shore. It was afternoon when we reached the landing place at Sheikh Haji Tarfa's. There was little indication of the importance of the place. Gardens with tall trees, willow lined streams, and in the back ground round and square towers surrounded by a wall with saw-toothed battlements, all covered with a light brown plaster of clay. We left the boat and walked up past a few reed huts to the long low guest house. Here the host had built a summer pavilion at one end by spreading mats on a frame of poplar saplings under and around a fine mulberry tree enclosed with a lattice of reeds. Here we found a large assemblage of men, but the host was at his siesta in the sacred precincts of his harem, whither no man may enter nor is ever invited.

We had been sitting but a few minutes when we heard a monotonous song, now so familiar when the Arabs join in work or recreation, and soon saw a large party approaching armed with guns. They came up to the platform before the guest house and there performed the "Hosa" in our honor, singing a chant varied to suit the words. Each sentiment is sung a number of times, while the men with their guns held muzzle downwards, performed a curious sort of dance -- a trot in short steps for ten feet or more, then a turn and trot in the other direction much like a shaker dance. Now and then one of the number stops the singing, then gives out a new set of

words hopping up and down as he does so. Immediately the crowd takes it up and continues the animated dance as before to the new words.

Presently Haji Tarfa clothed in a black abba trimmed in gold lace at the neck, and the usual pattern blue cloth over his head, fastened by a wreath of brown woolen yarn, tied in knots and arranged in links. Everyone arose as he entered the house. Haji Tarfa is held in great respect throughout the country. His reception of us was most cordial, and after two hours spent in pleasant and animated conversation, we bade adieu to Sheikhdome and returned to the castle as the sunset glow disappeared behind the mounds and the stars one by one appeared in the fading twilight.

The monotony of our daily life at Niffer knew no interruption for many long months of watchful care and unceasing toil, but a visit one bright beautiful morning on a festal occasion to Suk-el-Afaj, our nearest market village, came with all the refreshing influences of a hard earned holiday. We walked to the nearest village towards the southeast, and there took a boat. It was the same place where we disembarked after our trip to see Haji Tarfa. Today we had a large body guard, two boat loads, for a company of our Hillah people went with us.

We were much interested in the different forms of plant life which fills these great marshes. The small, white, petal winged plants resembling the water lily, from one to fifteen inches in length, float upon, and in some places almost cover the surface of the water. There were tall flags, ten or twelve feet high, with their single great blades rising straight from the water, or bending gracefully in the wind; the giant reed that resembles the bamboo in leaf and stem, although neither so tall nor thick. Some of these reeds had feather like tops, almost as fine and graceful as an ostrich feather, while the flags bore long slender cat-tails. A plant shaped like a water lily, with a flat oval leaf of brilliant green above, shading to a deep dull liver color beneath, covered a part of this great marshy district, while other portions were carpeted with a brilliant golden yellow flower not unlike our buttercup of New England.

We landed close to a large grove of palms which can be seen from the castle, and from this landing the whole of the great mounds of Niffer were visible in the dim distance. The ground here was covered with a beautiful green grass and presented the appearance of a lawn. We went through the palms and were soon in a district that had lately been first robbed and then burned by the Daghara Arabs. The people were busy rebuilding their reed huts. Here the streets were bounded by fences of reeds so closely woven as to form tight walls, and in a way, give privacy to the enclosed dwellers. We went into town behind the Bazaar, our guard seeming to think it advisable, for we were the first Europeans that had visited the market for many years. Beyond the Bazaar we came to a wide canal where a Kuffah ferry kept up communication with the road to Divaniyeh. We were conducted to the house of the principle merchant, who acts as the head of the village, and entertains strangers, and we were soon seated on the rugs and cushions of state in the shadow of the mulberry tree. This place proved most pleasant, and our host soon appeared --- an old man whose hair and beard were dyed with henna, while his eyelids were blackened with antimony. He was dressed in the usual blue Kerffieh (*sic*) confined with thick cords of brown wool and wore a dark blue robe striped with lines of yellow. We were first served coffee, then tea flavored with cinnamon, followed by luscious watermelon, muskmelon, fresh figs, with

the usual acidulated milk and bread. Although we could only eat a morsel, compared to the plenty set before us, our numerous following made short work of it. Our host was very hospitable and sat cutting melon and urging us to eat until we could eat no more.

We sat under the trees and prescribed for the sick, halt and blind brought to us. This was the time for the ceremonial bleeding which the Shiite Moslems undergo in honor of the approaching festival, and Hassan, our cook, bared his arm for that operation while at Suk-el-Afaj.

On the return journey, we passed some very curious looking granaries. They were made by enclosing a space with a mat, forming a big cylinder in which the grain was stored, then the top was covered with a thick layer of mud, which bakes in the sun and forms a crust over the granary.

The walk to the castle was most trying. The earth was so encrusted with salts that it resembled a lime-kiln, and a furiously blowing gale, scorching hot, prevented the use of an umbrella, making the reflection from the ground painful. However, a sharp walk, followed by a bath, made us feel better than before, and helped to make one of the hottest afternoon we have ever had, bearable.

The so-called Persian Passion Play is not enacted among the Afaj people, nor, so far as I know, is it anywhere formally enacted among tent-dwelling Arabs, yet it is a day of mourning and lamentation in these parts and is of necessity a holiday at Niffer.

According to the Mohammedan era, the 10th. day of the first month of the year (1312) is the month of Moharren (*sic*) and is therefore the anniversary of the death of Hussein of sacred memory to every earnest follower of the Shiite faith.

Our Hillah people observe the day by joining their co-religionists in their camps round about us to celebrate the virtues and lament the untimely death of Hassan and Hussein, the two sons of Ali, the grandsons of the illustrious founder of the Mohammedan religion.

A festival altogether new to us in the experience of our camp life at Niffer, and yet a common incident in the life of the Arabs, was seemingly much enjoyed by our desert neighbors and friends. We were awakened early in the morning in time to see the old crescent moon fading in the gray dawn just before the rising sun bathed in a flood of morning light the wide spreading mounds of Niffer.

It was Sunday the 23rd of September, and according to the religious custom of our Arab people two of the boys of our camp, were to be circumcised. The festivities began the evening before, and during all hours of the night the people made merry with sing and dancing. When the hour for the ceremony arrived, Ismail, the foreman of one of our gangs of workmen, sat upon the ground and he held the victims in turn, while directly in front of him, sat the barber, who in lieu of a priest officiated, using a sharp stone, which in this case was a saw-toothed piece of black obsidian, perhaps an ancient knife; this implement being still used among many of the Arab tribes. A number of the men of the company held a blanket stretched over the group hiding the spectacle, while the rest of the people gathered around permiscuously (*sic*) mingling their articles of faith with songs of encouragement.

When the ceremony began, the blanket was gently waived up and down, and with the clapping of hands, the men sang in a loud chorus “Sulla Allah Mohammed” while the women, to drown the screams of the subjects sounded their shrill “Tahleel”; and judging from the resistance offered, the boys strenuously objected to being gathered into the fold of Islam. All day there were singing, shouting and rejoicing, which culminated towards evening in a grand jubilee when the men came home from market with supplies for a great feast in honor of the glad occasion.

During the day we had a visit from Said Ali who, though a stranger, made kindly inquiries as to our health wishing for us the possession of all earthly blessings, including riches, fame and honor. After this peroration and introduction, the self righteous man unblushingly stated that he wanted a donation of five Turkish liras, equivalent to \$22, towards defraying the expenses of his son’s wedding which he said would cost 50 liras. This high toned beggar, like others of his class, depending on his holy office as descendant of the Prophet, claims the right to assess people of wealth and influence to meet his expenses. Our commissioner Saleh Effendi, who acted as interpreter on this occasion of neglected privilege and refined charity, was much incensed with the holy beggar and replied that he would himself marry if his wealthy friends would defray his expenses.



### Arab Wars.

In the last week of May 1895 an unusually severe war was begun and finished in the immediate precincts of Niffer, even within sight and sound of our camp and excavations. The reports of the antiquated flintlock and the double barreled shot gun fell upon our ears without cessation and with scarce perceptible diminution of sound by day or night, for three successive days and nights of stubborn attack and as stubborn resistance.

Open firing began Sunday night under shelter of darkness and continued until midday of Wednesday, when a truce was called and a treaty made and ratified, to be broken on the first slight provocation, or convenient opportunity. As usually happened, the strife was for territory.

The Behahitha, Es Said, and other small tribes, were the aggressors. The El Henza (*sic, Hemza*) Arabs, led by their Sheikh, Abud-el-Hamid, the president of the five confederated sub-tribes, and until then our only true friend, except Haji Tarfa, and our bulwark of defence, were besieged by double their numbers.

The Behahitha, and their allies marshalled 800 guns, and had a large reserve force to replace and refresh their comrades during the long and wearisome battle.

Throughout the whole length of the wearisome conflict, Abud, with only 400 warriors, without rest, change or reinforcements, fought with steadiness, courage and desperation, and in the end won a glorious victory, which much strengthened our own position among these turbulent, treacherous and covetous semi-savages.

Every trick, wile and artifice was tried in vain to overthrow Abud as the Sheikh of the El Hemza Arabs. Abud stood like a wall, firm and unyielding, through all the sallies and assaults, the hopes and the fears; the ups and downs of the raging strife, now hot, now cooling for a fiercer struggle, or giving way to some ambushade and pitfall into which the sturdy, wary warrior was not drawn for a moment of time.

Every true friend of the expedition had reason to feel profoundly grateful for the issue of this petty and inhuman warfare. Had Abud been overthrown, much trouble would doubtless have come to the expedition in many ways, and from many sources.

As usual the killed were carried away to be buried in the sacred soil of Nejeff, the site of Ali's distress, death and burial, more than 1200 years before. Great numbers of corpses are sent to Nejeff for burial and Moslem pilgrims from all parts of Persia and India journey thither to die, it being one of their articles of pious faith that any Moslem buried within sight of the dome of Ali's tomb is sure of salvation.

The wounded were brought to us to have their wounds dressed, and to those who could not be brought to us, carbolated vaseline was sent on application, and thus in some slight degree did we win the confidence and good will of friend and foe alike by these unpaid ministrators (*sic*) in relief of human suffering.

About the beginning of July 1895, a party of Behahitha Arabs seized a castle in the environs of Niffer toward the westward from the mounds. The El-Hemza Arabs began to gather to prevent

further fortifications being made until a sufficient force could be collected to expel the captors, or to conduct a successful siege against them. Haji Tarfa joined the El-Hemza Arabs and presented an ultimatum to the usurpers. The ultimatum demanded instant evacuation of the fortress. The demand not being complied with, Haji Tarfa ordered a general muster of his warriors for service in the field, and despatched swift footed messengers calling upon all his numerous allies to unite in repelling the invaders, who, unless driven back would gradually possess all the territory of the El-Hemza and Afaj Arabs.

The next day witnessed a great assemblage of warriors from many quarters of Afajland, and adjoining regions. Like processions of ants, they came and went, and straying, and rambling, over the country, loosely following their standards, yet observing no special form or order of march. Each tribe had its own ensigns. Some were white, bordered with crimson, some were green, and some were red trimmed in a diversity of ways, but all displayed the crescent either alone or in connection with some other device. This will be interesting in corroboration of what has been said of the bronze crescent found in a grave of comparatively early date.

Among other allies came one Atiye, a powerful Sheikh near Daghara. This Sheikh controls the water supplying the people who had occupied the fortress. He threatened to cut off the water supply from those people and cause them and their flocks and herds to perish from thirst, unless they should instantly surrender the fortress. The fortress was accordingly surrendered in the afternoon of the same day, and the assembled hosts dispersed in the same straggling, tumultuous manner as they had gathered a few hours earlier in the day, and almost instantly we felt that we breathed a freer purer atmosphere. The threatened war was safely passed for that time at least, and in this unsettled region of ancient civilization one regards only the present moment, nor takes thought for the future, glad even that tomorrow's destiny is veiled in obscurity from his already overburdened knowledge of the exciting past and present.

Some of our basketmen were mustered for warlike service, which, materially thinned the ranks of our laborers for one or several days, according to the circumstances and exigencies of the war.

The pomp and glitter of war-like demonstrations and the matching of forces in successful arbitration having proved effective, all hands were at length found in their respective places in the trenches and after three days of successive interruptions the work moved on again as usual to be interrupted at intervals by fresh levies of warriors from our basketmen. Sometimes those levies were made for one day sometimes for a week. Generally a war was fought to a settlement within a few days after open hostilities began although a kind of gorilla (*sic*) warfare might exist for many weeks or months.

From Haghan to Lamloun all the surrounding Arab tribes, far and near, made a solemn compact to resist the Turkish troops, that it is supposed the government is about to send into this region to collect the arrears of taxes unpaid for several years.

The bitterest of enemies for the present moment laid aside their tribal warfare to unite in sympathy against their common foe. In all the length and breadth of Afajland, there was no battle cry or sound of war. A profound peace settled down over all the region about us. It was like the Sabbath in a country village of puritan New England. People went to and from tribe to

tribe and from tent to tent, and wandered over the desert at will. There was no discord in all the land, and their goings and comings were like the processions of earnest pilgrims on their pious errands and missions of peace.

One longs for the far-away time when the new dispensation shall establish upon the ruins of temporarily suppressed warfare a universal and everlasting "Peace on earth, good will to men".

This self-same defiant, covetous, treacherous and blood thirsty throng of plunder loving Arabs, still boasts of annihilating a battalion of troops, commander and men, sent into these marshes some twenty five years ago, to collect regular arrears of taxes.

Within the last six months of our stay at Niffer, the two Sheikhs Abud-el-Hamid and Hamid-el-Birjud pledged to our support by solemn oaths, violated their written pledges and every honorable sentiment of right. Until mid-summer of 1895, Abud-el-Hamid, in his stolid way, was a wholesome restraint against the more wily Hamid-el-Birjud in his over reaching designs of evil and mischief. But Abud had since broken every pledge of honor and resorted to Arab tactics of deceit, to threats, and to show of violence to get, gain or force from us some unfair advantage, which he would be quick to follow to further discomfort us.

These Arabs regard it as their inalienable right, established by precedent, to receive a larger income from us without reference to an equivalent from them. The Sheikhs believe that the subscribers to the expedition are willing to pay the larger sum and would even increase it if asked to do so. According to their notion, the director does them a great wrong, and Arabs know but one way to right a wrong. No one but myself knows, or can know, what it has cost in mental and physical wear and waste to accomplish what has been accomplished in reducing the expenses for the Arab guards, and at the same time to keep the full number of guardsmen on duty, for I have insisted on a nominal equivalent for everything, great or small, that has been paid into the hands of the Arabs, whether Sheikh or humblest private person. Any man who attempts the same course will find himself in great danger in many ways and at many times. If any one should adopt a more liberal course of payment, he would find his path smoothed for a very short time only. No increase of payment would long satisfy these greedy Sheikhs unless it were often repeated in increasing ratio. To yield now would soon break up our work. We have fought too long and too hard to willingly see any part of the victory turned into a defeat.

For about one year and a half the sheikhs paid the guards the stipulated price of three piasters each per day. They furnished six guardsmen and received payment for ten, thus receiving four tenths of the regular payment as their personal part of the compensation for securing protection to life and property.

The sheikhs have bluffed their own people into receiving a lesser compensation and retained one-half of the weekly payment for themselves. Having successfully brow-beaten their own people, the idea of additional gain from the expedition was logically suggested and adopted in the most faithless manner. The attempt failed as every other trick has failed to do us serious injury, but to maintain the life, the integrity, and the dignity of the expedition has required all the tact, patience, and courage at our command, and more than this it has often required the use of time and talents that ought to have been given to other matters.

It is a universal belief among the Arabs that all ancient sites are today the habitations of evil spirits who sleep by day and roam about at night, inflicting evil on any impious mortal who should dare to trespass on the domains of darkness and disorder. The once populous mounds of Babylonia were at first deserted, then avoided, and finally abhorred by the superstitious people of the country, who have without knowing it preserved much of the idolatrous superstition of the ancient Babylonians.

It is the unshaken belief of the people that the ancient mounds filled from time immemorial with the graves of dead men are become the habitation of evil genii, and are the abode of still more wicked demons, whose chief aim and supreme delight is to inflict evil and bring torment upon the children of men. Those imps of Satan yielding to drowsy slumber through the day, were especially active and irresistible at night, under cover of darkness as befits evil deeds, and they were sure to discover and capture all those who should venture near their dark abodes under sway of the imps of Satan.

Those evil spirits without exception, and from sheer delight were supposed to inflict blindness, incurable disease, or mysterious and retributive death upon all who by day should carry any trifling thing from the surface or from the depths of these accursed mounds, or who should impiously tread the unhallowed soil by night.

These, and similar superstitions (*sic*), together with the universal terror of the people to tempt the evil spirits, in full possession of the deserted mounds of ancient habitancy everywhere and always has been the first and greatest safeguard of the mounds and their buried treasures of history and art. These treasures found a safe resting place in the soft and pliant folds of the preserving earth, for many centuries after their authors had been forgotten. They seem to have been preserved by Providence for this enlightened age of scientific progress to recover from oblivion for the benefit of the whole world. All succeeding ages, and generations of mankind, in a time of ever-hastening progress and quickening power to grasp and utilize every form and feature of human intelligence, not only in the realm of the slowly recovered facts of the past history of the human race, but also in the broader field of newly discovered truth, as it relates to the more substantial building of future history, in what appears to be but the beginning of a new and more wonderful era of scientific advancement under the beneficent reign of a purer, freer, gentler, and yet more active, because more intensely earnest spirit of Christian enlightenment, and onward progress, toward the attainment of all essential truth, whether it be revealed in the written pages of inscription, often copied by erring and careless hands or whether for a time, even for generations and ages, it lies hidden from mortal vision in the strata of the earth's crust or is concealed under some great and mysterious law of the Universe, whose phenomena we see, and know not whence they arise, nor can we discern their usefulness to mankind, until the unvarying law itself is discovered by the truth-loving mind.

### Arab Perfidy.

Hamed-el-Birjud, one of the two sheikhs, who receive a weekly allowance to furnish us Arab guards, not being content with his former laurels, sought to distinguish himself in a signal manner by a sly act of unscrupulous greed and contemptible villany of which he alone, with his smiling face, facile speech, deceitful and flattering tongue, is perfect master.

It was Sunday, the 23rd. of June 1895. A religious ceremony was to be held at Suk-el-Afaj, a preparation for the worthy celebration of the anniversary (*sic*) of the death of Hussein of sacred memory to the Shiite Moslems. All our workmen were absent; the camp servants, too, were attending the annual rites, steward and cook were absent, and the camp was almost deserted of its male numbers. Even the Arab guards had conveniently disappeared. Only one swarthy Arab with his antiquated flintlock stood to his duty. His untutored mind espoused the cause of neither party. To the very end he was impartial. He even showed no preference for wage payers, nor did he betray the least desire to see their cause flourish. He showed himself a true descendant of the race which is supposed to have originated free government. His political principles, inherited with his Arab nature, were incapable of prejudice. He smiled alike on the just and on the unjust. With equal fervor and grace he greeted friend and foe. It was plain that we, single handed, must first fight our battles, and win our victories. True to his instincts he would then recognize the winning party. Without violence he could then use his diplomatic skill and lend his republican sympathies and dignity of a lawless Arab to our moral support.

Three armed Arabs, with a young mare of choicest breed, owned in partnership, over which an old dispute had suddenly sprung into a deadly feud, were hotly pursued to our very threshold by an angry mob of about thirty well armed men seeking their lives.

Such was the exciting story told by the fleeing victims of Arab vengeance, as in their frenzied haste they sought asylum within the strong walls of our castle.

At the door were two guards, one of whom met the rabble outside the door and denied admission to the pursuers. The other guard shut the door. The furious crowd outside threatened to burst the barriers and enter the castle.

At this juncture, the writer, attracted by the tumult, descended to the door and bade the guard conduct the fugitives to the guest house and commit them to the protection of the Arab guard; where according to their unchanging laws, they could remain in safety. Overcome with fear they refused to move. The guard acknowledged his inability to move them. The unwitting commissioner interceded for them. To no good purpose, the refugees were again bidden to go. They refused, and reasserted their imminent danger.

A tumultuous attack on the door was threatened, and those warrier Arabs, with the agility of cats, sprang into the court of the building, and were making straight for the storerooms with apparent intent to conceal themselves from their foes.

This movement clearly revealed the nature of the plot. They were quickly, and possibly with roughness, driven back to the door, where they cowered and visibly quaked with rising fear. With the aid of a bright lad of perhaps twelve summers I succeeded in getting them out of our

fortress dwelling – an act requiring all the coolness and nerve at my command. The result justified the act. The tumult instantly became louder, the mob more angry and vociferous every minute, threatening violence, but no violence was done.

After the lapse of a few moments, the arrant suppliants returned to the door, which had been opened in spite of all commands to the contrary. There remained no other course but for me to meet them at the threshold and oppose their entrance, while outside several guns were fired. They passionately kissed my shoulder, and they kissed the hem of my garment, piteously pleading not to be sent away to certain death. By stern necessity my heart was hardened and their entreaties were vain. According to their own laws they were as safe at our guest chamber under the shelter of a tent rope as within our castle walls. It was clearly a ruse to loot and rob the camp. One of the leaders of the attacking party, seeing the uselessness of further supplication called the suppliants to him with a broad smile, which betrayed the nature of their relations, and the purpose of the plot. The door was then closed and fastened, and the two parties, in perfect good fellowship, went away together showing their chagrin and disappointment, and by their very acts, revealed the spirit of their villainy toward us.

To convey the idea that the affray had sprung from a real cause, the mare was left hitched to our guest house for twenty four hours. She was then taken away by some third party without further attempt at dissimulation, for by that time the farce and its clumsy failure were generally known, and far and wide the actors were held in derision. It is now well known that one of these three fugitives who entered our house is a famous robber, whom Hamid-el-Birjud had fetched to his camp for his evil purpose two days before. The other two men were desperate members of his (Hamid's) camp, who were strangers to us.

Ready for the most desperate deeds the party strove to so manage the affair that the responsibility would seem to lie at our own door, for having violated the unwritten laws of the land and having fallen into a trap ourselves. Hence no open attack was even thought of. At the door there is a standing order to admit into the house no one except its inmates, our skilled workmen from Hillah, and the three sheikhs who, for an allowance, pledge themselves for our safety and welfare. These sheikhs are Haji Tarfa, Abud-el-Hamid, and Hamid-el-Birjud. The former is true and staunch, the latter a smooth tongued villain without scruple or honor.

It is unfortunate for the expedition that the immediate environs of Niffer lie within the territory of Hamid-el-Birjud. Otherwise we could make an alliance with Abud-el-Hamid for protection.

Hamid-el-Birjud considers that he has a two fold grievance against the expedition, first for reducing the allowance for Arab guards; second, for dividing the diminished allowance among several parties in such a manner that Hamid's personal gain per week was about one-seventh of his weekly gain during the winter and spring of 1890.

Like a true Oriental, Hamid believes that the promoters of the expedition regularly pay the former allowance for guards, and that it is therefore his right to receive it, while the director in the field is supposed to be the gainer thereby. Moreover, he believes that the American people are possessed of unlimited wealth and prodigal habits, and that if the matter were properly presented to them, they would willingly increase the former allowance for guards. Instead of an

increase he has to accept a decrease, and puts the full responsibility on one person, whom he believes adds the difference to his own purse.

Hamid's covetousness and jealousy furnish the motive for his evil deeds. His sly tricks and evil schemes are not all directed against the expedition. He is always and everywhere active to gain any advantage, material or otherwise, that opportunity offers, over his fellow sheikhs, and over the tillers of his soil.

He has been specially alert to precipitate some untraceable evil on the expedition, and cast the suspicion on Haji Tarfa and Abud-el-Hamid, while they were responsible for its welfare, to the end that the expedition might be placed under his sole protection (*sic: protection*) and that he might receive all the gains for himself. On two separate occasions, Hamid has secretly entreated me to place the party under his sole protection, which would seem to be the height and depth of folly, and the beginning of trouble.

Haji Tarfa, though still vigorous, is in the declining years of his life. Abud-el-Hamid is of middle age, and in a natural and healthy way, is growing strong in experience, wisdom, and moral influence, according to Arab standards and traditions as venerable as are the monuments of Ur-Gur's wondrous skill.

As long as those two sheikhs live, and rule their respective tribes, so long can the expedition, with ever watchful and prudent care and discretion, directed with determined zeal, hold the ground which has been gained with so much difficulty, and not without danger at many points, but above all it must be Watchful and must Watch Without Ceasing.

### Battles Lost and Won.

Weary of the peace which had existed but a short time, our neighbors sought the warpath in the spring of 1895. The number of robberies and assassinations had been abnormally great, even for this lawless region of ungoverned country. Troops gathered in large forces at Daghara, and the neighboring sheikhs repaired thither in obedience to the summons. Great excitement prevailed and threatening remarks were often made even to our soldiers. Only the most unremitting vigilance on our part prevented harm coming to us. We did our utmost to prevent serious trouble, and keep the atmosphere of our little camp serene, and a sense of security prevailing over all, but with all the confusion and unrest round about us, in all this commingling of friend and foe, with treachery and corruption running rife even among our very guards, we could but do our utmost in all watchful, careful, and prayerful ways, and leave our keeping with Him who holds us "in the hollow of His hand", and without whose notice "not even a sparrow falls to the ground", nor did He fail us in any of our times of trouble.

It seemed a pity to expend one's strength in trying to preserve one's life for which an established guard was well paid, and yet such an unwelcome duty became an imperative necessity.

Among our neighbors several blood feuds were settled in true Arab style, and new feuds, shifted to the person of one's bitterest enemy, created, to be handed down in perpetuity to coming generations. Some eighteen bodies of the killed were carried to Nejeff for burial in the sacred soil, consecrated by the death of Ali.

The annual migrations of the great tribe of Shammar Arabs, appeared sufficiently near to Niffer to throw the surrounding people into their normal state of alarm and excitement.

From their southern neighbors a company of Afaj Arabs at one time captured a whole encampment, drove away flocks and herds, and gathered tents, stores, and other movable property as they departed. The offended tribe gathered in force to recover its property by resort to arms, since an appeal for restitution was denied. Haji Tarfa at once raised his standard, and mustering his warriors successfully resisted the attack, and sent many wounded men to our doors for treatment of their uncleansed wounds.

During the last half of the year 1895, each month and week it became more difficult to send messengers to Divaniyeh to carry and fetch the weekly post, which was frequently omitted because no one could be found who was willing to go on the peaceful errand. On several occasions two armed men were sent to fetch the post, because one man could not be found who was willing to make the journey alone.

The general condition of pillage and murder round about Divaniyeh to the very threshold of the palace grew apace, and was nurtured by the greed and revenge of the city-council led by the Mufti and Kadi in a deep and dark intrigue to overthrow the new Musterif (*sic*: *Muteserif*)(governor) while filling their own purses with the gold of thieves and assassins. No one could rest in safety except those in league with the robbers.



A band of Arabs from Daghara attacked and burned Afaj. Afaj is our local market and is perhaps five miles distant from Niffer. A great deal of property was destroyed and a considerable quantity carried off by the sneaking band of villains.

Twice was an attempt made, for the sake of plunder and revenge, to kill our confidential agent returning with money from Hillah and Divaniyeh to Niffer. It became more difficult and dangerous to bring money to Niffer as time elapsed and the Arabs became aware of the fact that considerable sums of money, which might be easily intercepted, were passing through their lawless deserts and marshes.

The very last time that money was brought to Niffer there was an attempt made by Hamid-el-Birjud to waylay the confidential agent en route with the money. The reason he failed to capture the agent with his money bags was twofold; first, he miscalculated the time of the messenger's return; second, he was astonished to find the messenger attended by four mounted soldiers and three other armed men. The messenger, knowing the lurking dangers of the way, had prepared the money for transportation the preceeding night and before the dawn of the morning light had broken, he gathered his little company together and leaving Divaniyeh by night, pursued his journey over the sleeping deserts without exciting incident. Yet as he and his little band of wayfarers safely emerged from a long stretch of brushwood and thicket, he met Hamid-el-Birjud with a chosen band of eight well armed warriors, riding straight towards the thicket, with evident purpose to lie in ambush for him under its excellent cover of brushwood among the innumerable watery glades of the marsh, whence escape would be well nigh impossible, and defence against a concealed foe, would at best be an unequal contest.

Meeting in the open desert and on firm dry ground, the keen-eyed quickwitted villain, after the manner of eluded robbers, saluted the sturdy messenger in facile, friendly speech, quite meaningless to an old traveler who has often been saluted in like manner by parties too weak or too timid, or just too late to gain some vantage ground over him, to rob him.

Every experienced traveller in the unfrequented parts of Syria, Asia Minor, and Babylonia, has met organized bands of robbers, who through some unfavorable conditions, decided in the twinkling of an eye not to risk an attack, and with pleasant salutations pass on as if he too were travelling to distant parts of the country on some peaceful errand. By instinct the traveller comes to know those bands of welcoming villains, who are all things to all men according to the circumstances of the first moment of the meeting.

The expediency of attack is generally decided on first sight of a party. A moment's hesitation on the part of the robbers is generally a virtual decision not to attack. The trained traveller sees and understands the movements better than the vacillating highwaymen who are still debating the question of attack, as if the decision were not already made against making the attack by their very act of hesitation.

Fearlessness, self control, perfect command of one's forces, and show of boldness and nerve in marching straight along without bluster or swagger, will generally win the day for the courageous traveller against the hesitating robber, be he ever so bold and villainous.

So the treacherous chieftain Hamid, with his savage band of desperate men was too late for the attack he had planned to make in ambush, and again by virtue of sleepless vigilance we had escaped unharmed from the snares and wiles of an unscrupulous villain whose schemes are the more difficult to meet because of his professed friendship. This treacherous sheikh, bound by written pledge and solemn oath to protect and aid us in all needful ways in return for the revenue he received for furnishing Arab guards violated every pledge and oath and sacred trust in the most faithless manner. The wily chief devised and wrought untold mischief, and the mildest thing of all his ill doing was to cut off our water supply. Repeatedly did he do this for no other purpose than to gain money for its restoration. All of his tricks and wiles availed him nothing. Although for a time it would have been easier to have temporized with the greedy Arab, yet one unlawful gain would have led to others, and the principal one, once admitted, would have led to ever increasing demands of extortion.

Until the last six months of our residence at Niffer, Abud-el-Hamid treated us with fairness, justice and honor. His spirit of fanaticism was in due time awakened and he afterwards violated every pledge and promise of honor, truth and righteousness. For more than two years he was our bulwark of defense against many of the wiles of Hamid-el-Birjud but in the end he too became covetous of unlawful gain, and sought several opportunities to press us in hope of private gain. As a matter of policy and principle we resisted with sleepless waiting and watching all attempts of the Arab sheikhs to do us injury either pecuniary or as making future explorations difficult to carry on.

#### Well in Garden.

In an enclosed garden adjoining the castle, there was dug a well, which, to the surprise of all, gave drinkable water slightly impregnated with various salts, and yet scarcely rendered unpalatable thereby. This is the more strange, since a well forty-five feet distant from it gave very bitter water, and the water of a well eighty feet away was absolutely undrinkable for men and animals.

The first mentioned well is now lined with bricks, and a pump, secured in Baghdad, was put into it the following week.

The question of water supply was thereby temporarily settled for about two months when it was found that its saline ingredients were doing harm to all of the party. At that time wells were dug in the bottom of the dry water channel which had supplied a stream of water during the summer. The water collected by infiltration in these shallow open wells or pits was comparatively free from saline ingredients but filled with clayey deposits and unsavory to the sense of smell. It was boiled, clarified and cooled before use as a beverage and this was a precaution always resorted to at Niffer in preparation of drinking water.

GOVERNOR OF DIVANIYEH.

The musterif (*sic*) of Divaniyeh, a brigadier general in the army, holding also the civil office of governor, journeyed to Baghdad and refused to return to his post without soldiers. At last accounts the troops were not committed to him, and he, holding fast to his avowed purpose awaited a decision from the central government at Constantinople.

Whether true or false, the report that the musterif of Divaniyeh, failing to obtain the military aid he requested, resigned, his civil office, and will be stationed at Baghdad on the military staff there, is alarming. If the reports are true, and they wear the appearance of truth, the future is full of evil forebodings for the poorer people, who are native born, and for all foreigners dwelling in Afajland.

Robbery and murder increases as one approaches the seat of our local government. Under the very shadow of Divaniyeh life and property are most unsafe, and within its walls robbery is rife, and officials somewhere and in some way profit by the trade.

There seems to be a general dissolving of all forms of law and order. The body politic is in a state of collapse, and judging from Divaniyeh there is no available remedy, and no trusted physician to prescribe for the dying patient.

#### MOHAMMED PASHA.

Mohammed Pasha, a Russian exile of Georgian birth, with two batalions of infantry, a battalion of cavalry, and a battery of cannon, recently reduced the tribes on the Tigris and Shatt-el-Hie to order, and collected full arrears of taxes with little loss of life, though he applied fire with a ruthless hand to each resisting village and camp, for which purpose he carried thousands of gallons of oil, while his cavalry captured and drove into the vicinity of his camp the flocks and herds of the bewildered people. From Hie his headquarters on the banks of the Shatt-el-Hie, he was expected to cross the desert to Niffer, which is the very pit and pest-ridden slough of intertribunal (*sic*) feud and treasonable intrigue. For some reason unknown to us, Mohammed Pasha returned by steamer from Kut to Baghdad; but declared his intention to leave Baghdad at the head of sufficient force to reduce to submission these boastful and defiant marsh-dwellers and reed-hutters. Whether Mohammed Pasha will or will not execute his threat is beyond our knowledge, but at the same time it is impossible to understand how his government can abandon its purpose at this point. I do not believe it will leave the task half done as it is today.

#### Ahmed Bey.

At times squads of enraged Arabs over-ran the desert between Niffer and Divaniyeh, stripping everyone they found of property and clothing, without distinction of persons. At times none of the Afaj Arabs, or their natural allies, dared undertake to make a journey across the infested region, and it was not easy to secure a neutral messenger. On several occasions our post was sent through by night, while we hoped, almost against hope, that the dislodged Arabs would cease their swarming, and alight in some new and more remote spot before another post day; but

the political atmosphere threatened storm, and the war clouds seemed to thicken and deepen as they rolled nearer to us, until the deserts bristled with spears and every bush concealed a waiting robber.

One, Ahmed Bey, a desperate fellow, and a deserter from the Turkish army, a centurian by rank, and by birth a Kourd, of vile character, was sheltered by different tribes round about Niffer for eighteen eventful months. The alacrity with which he moved from one tribe to another, thwarted all attempts at capture, although the government had placed a large money reward on his head, and had promised to promote to the rank of captain, the soldier or officer who would capture and bring him living or dead, to the capital of the vilayet.

Several times he organized successful parties and committed large robberies at the expense of virtue and human life; the most successful of which were committed between Baghdad and Hillah in the vicinity of Khan Mahawil and Khan Hasswa and on the banks of the Tigris near Kut. This high-handed desperado would steal upon a caravan like the sneak thief that he was, and taking the lives of the men who resisted, and the virtue of the women who best pleased him, he would drive the laden animals away to his booty-loving comrades, in the environs of Niffer.

Near Kut on the Tigris there lived in a castle, which he had built for himself, a licorice contractor who had about him a band of 150 Nestorian families. He was known to have considerable money and other movable property. Ahmed Bey coveted the money in the castle and planned a bold attack to possess it. He succeeded in gaining entrance to the castle, but it was so well defended that he was driven away without booty, after severely wounding the contractor, who after several weeks of illness recovered and offered the liberal reward which ultimately secured the tranquility of the surrounding region.

An inoffensive Jewish merchant coming one day to Suk-el-Afaj for transient trade was set upon and murdered for seventy piasters (\$2.97½) which he was known to possess. His body was robbed and thrown into the stream, with no attempt at concealment and no succeeding show of justice, and for smaller sums of money have a score of lives been taken within a league of Niffer during our residence there.

Ahmed Bey brought to Shaheen's camp, about two miles distant from our castle, several animals laden with plunder, among which were two cases of Martini rifles, captured from the government. Shaheen, who is our bitterest enemy, and has organized several raids upon us, received and secreted the robber and goods, and otherwise co-operated with him, although he had given most solemn promises to the government that the robber should be seized and handed over to the authorities at the first opportunity. Such are the pledges of the faithless, treacherous Arabs inhabiting these marshes.

With this high-handed bandit so near us, the conditions of security were changed into a state of keen watchfulness on both sides. At times we had great difficulty to communicate with Divaniyeh. The Afaj and El Hemza tribes on the one hand were at feud with the Daghara Arabs on the other, and there was no comity between them. Furthermore our constant watchfulness was directed towards Ahmed Bey and it was a dangerous and difficult matter to get money to Niffer. Even caravans of corpses were set upon for plunder and abuse, and women were at times

violated as a principal of political revenge, whenever and wherever found. It was only by the exercise of the greatest care that the well-laid plots to waylay and rob the trusted messenger who brought us money were averted.

Our weekly postman to and from Divaniyeh thrice fell among thieves in the year 1895, and each time was persuaded to divide his scanty raiment with his covetous countrymen, although the letters were each time allowed to pass as worthless matter.

Under the direction of this boldest of cowards, Ahmed Bey, our house was to have been swept of its coveted treasures and its walls garnished with the blood of its occupants in the darkest hours of some favorable night during the sacred month of Ramazan, which month ended on the 28th. day of March 1895. The plot was devised by Mahmoud Effendi, Hamid-el-Birjud conducting the negotiations with Ahmed Bey. The soldiers guarding our door from within were to be asleep, and the Arab guard was to be decoyed away from the rear of the house whence the ascent was to be made to the flat roof. The descent from the roof to the rooms could then be easily made while the soldiers slept.

The reason for such action was the circulation of false reports that we were about to quit Niffer and had a large sum of money in the house. That duly authorized Turkish official, the commissioner Mahmoud Effendi was the author of these reports; he having received notice of appointment of his successor under circumstances of great humiliation to himself.

An ever watchful and gracious Providence gave us the necessary clues to awaken us to the emergency, and an unsleeping vigilance on our part, carried us safely through those perilous nights.

For full eighteen months did Ahmed Bey and his desperate gang commit the boldest of robberies and destroy many lives round about Niffer, but he was at last captured and killed by an Arab, and his head sent to the capital of the vilayet, Baghdad, to claim the reward offered by the government, and that of the licorice contractor.

His bloody deed had inspired the hatred of all travellers and his outrages had won the curses of all women, save among these villainous Arabs who praised his courage and rendered efficient aid in return for a liberal share of his ill-gotten gain.

Ahmed Bey although one of the boldest and most daring of cowardly robbers in all the length and breadth of Afajland was not more bloodthirsty or fiendish than thousands who yet live to curse the lives of men and women alike. Recently some 40 Arabs came upon eight women (three virgins and five married) and in turn took political revenge upon the hostile tribe in a public oriental style. For themselves the married women quickly submitted, but plead for the virgins. The plea was not heard and the virgins were likewise violated.

Our postman saw a party of five dark-visaged children of the desert come up upon a man and wife and these in turn made a record for themselves, which record will, without reserve be related with some degree of elation, and listened to with approval. The husband had to stand quietly by and bear silent witness to the carnival of lust in public.

Early in November 1895 an army surgeon with his harem and an escort of four soldiers, 3 servants, and two boatmen, was attacked by a party of about 40 Arabs under the leadership of the Persian Kourd, Selman, a renegade and a fugitive from justice, whom the Behahitha Arabs sheltered. He is a proscribed outlaw and a robber by profession, and by practice a villain grown desperate. He was wounded by his own brother in robbing a house in Divaniyeh. In the darkness his brother had mistaken him for the house owner and shot him. I then hoped he might commit no more evil, but my hopes were in vain. His specialty is robbing houses in Kut and other places on the Tigris, and in Hillah and Divaniyeh and many other places on the banks of the Euphrates. For many months his covetous eyes were fixed on the castle at Niffer and even made up a party to assist him. He afterwards took to plundering parties on the highways and thoroughfares by land and by water. The above robbery took place about five miles below Divaniyeh on the river. Two soldiers and two servants of the surgeon were wounded. One servant soon died. One boatman was killed outright, and the other severely injured. The soldiers killed three, and wounded several Arabs; but the larger party soon prevailed and sinking the boat, stripped the travellers of money, jewelry, household goods, and personal ornaments. The robbed party returned in sorry plight and humiliation to Divaniyeh, and telegraphed to Baghdad and Constantinople; but nothing came of it. The local government was supine, and its petty officials in league with the robbers, which makes the latter more desperate and fearless, committing their outrages under the shadow of the palace at Divaniyeh by night, and blocking the highways by day<sup>1</sup>/<sub>2</sub> without fear of being molested or questioned.

Week by week the state of all the region round about Divaniyeh is getting steadily worse in every way.

#### RESIDENCE AT NIFFER.

It is by no means easy or comfortable for any foreigner to dwell near the pestiferous, insect-breeding, seething and malarious marshes of lower Babylonia, when the temperature in perfect shade rises above one hundred and fifteen degrees (115 Fahrenheit) and the stifling dust storms rob the sun of shadow, and parch the skin with a furnace heat, while the ever present insects bite and sting and buzz, through all hours of the day and night.

Experience confirms the conclusions of former years that the autumn months are the time of danger to health. The long and hot summer leaves the body debilitated, and the sudden change from a hot and dry, to a damp and chilly atmosphere, brings attacks to the weakened system at its weakest point, always accompanied by more or less malaria and diarrhea. Even the native population does not escape these evils.

It ought also to be said that anyone who takes cold at the autumn season, invariably, so far as my experience goes, suffers from malarial fever in some form more or less violent, and each springtime witnesses many deaths clearly traceable to colds taken the preceding November and December.

It would therefore seem that for an Occidental to spend the summer at Niffer is a matter of physical discomfort and inconvenience more than of actual danger to health. The time of real, and not of fancied danger, lies in the change from summer to autumn, and in the autumn months.

A woman in our camp, the mother of three small children, suddenly died of a disease clearly traceable to cold and neglect, and was buried in consecrated ground on the banks of the Euphrates.

For serious explorations in any part of Babylonia, I would earnestly recommend continuous labor through all the months of summer and winter, as we have attempted to do at Niffer, and by so doing, have proven, beyond the right of any one to doubt, the possibility, if not the wisdom, of conducting continuous excavations under proper conditions, and regulations of life.

After a larger experience than has fallen to the lot of any other Occidental, I must confess that the tension of daily life among these greedy, treacherous Arabs, through the heat and pests of a Babylonian summer, often approaches uncomfortably near the breaking point; nor is the strain wholly physical. The mental organism has its peculiar burdens and tension to bear, and these are sometimes greater than it is possible to describe.

The dry, stifling heat which rises from the desert sand-beds is much like a blast from a heated furnace. The prevailing direction of the winds in lower Babylonia follows the trend of its two great rivers, the Tigris and the Euphrates, blowing from the northwest with the current of the streams or blowing against the streams from the southeast. The southeast is the hot wind, while the cooler breezes come from the northwest and from the great marshes. These breezes prevail in summer and are comparatively comfortable by day, and refreshing by night, even when the temperature is excessive.

All over the plain, on any quiet summer's day can be seen little growing columns of dust formed by little cyclones, a most characteristic sight on those desert plains. At any time in the heat of a still day one may see several of those tiny cyclones forming a filament of rising dust, growing, swirling and sweeping away over the sultry plain out of sight. It is no unusual sight to see six or seven of those little cyclones in process of formation or movement, without turning the head. These only form on comparatively quiet days.

Violent squalls and storms of dust frequently occur through the summer months especially in June and July. There is something intensely dreary and desolate in the appearance of one of these dust storms. Every thing is a dull brown or cast iron color, and the earth and sky are full of drifting clouds of dust which has the appearance of an approaching blizzard of snow with the changed condition of parching heat. Sunrise and sunset are always peculiar in the long deep orange --- even fiery red band that runs along the horizon, against which distant mounds, trees or forts stand out in a deep purple. The green of the marshes, seems to take on a bronze green shade, and the pools of open water gleam almost silver white. Our favorite view is from the castle roof in the early evening when the sun sets behind the south end of the long range of Niffer mounds which here ends in the reed grown marsh. Just beyond is a sheet of open water, and high above the glow of saffron, purple and pink hangs the silver, thread-like sickle of the pale new moon. Often at this time, is to be heard the long drawn wail of a jackal followed by a chorus from our village dogs. Towards evening, too, our Arab guardsmen and laborers begin to be lively, perhaps they were a little tired and tried to work up their spirits. At last the single singer and his dismal song were drowned by the lively chant that Arabs use on all occasions

when they must make a combined effort --- pull a robe --- lift a weight --- or work up their courage to fight. A leader improvises words and sings them, to be answered by the same words by the chorus; or the gang divides into two parties who answer one another. Until late in the evening a crowd of children frequently sang at the top of their voices, pounding something that sounded like a tom-tom and clapping their hands to the tune. Arab music does not seem difficult to acquire, and the children sing it with as good effect as the older people.

The Arabs, old and young, celebrate the approach of festivals, by songs and “warwhoops” until late in the night. The plaintive love song of the male voices is interrupted by the vigorous and shrill tahleel of the women that sounds like the yell of the American Indians. To lend variety, a jackal ventured to bark his long drawn “eyouh-eyouh-eyouh” followed by an immediate war of barking in every pitch from the village dogs as they advanced out into the desert in a solid phalanx to meet the intruders, for the jackals go in pairs.

#### GOVERNMENT INSPECTORS OR COMMISSIONERS.

In granting permission to foreign governments and to parties of foreigners, to excavate within its territory, the Turkish Government appoints an inspector or commissioner to represent the government at the scene of excavation, his duty being to secure the fulfilment of the terms of the contract, and to prevent abuse of the privileges conferred by permission. The law of the land also requires that the commissioner be paid by the parties holding the permission to excavate. The Government appoints a Commissioner from its unemployed civil governors, no special fitness for the office, beyond the ability to read, write, and make a credible report, being required.

It is not an easy matter for a loyal subject to represent his government and satisfy a foreign paymaster at one and the same time. Our first commissioner, Saleh Effendi, a Kourd of Kerkouk, upwards of 65 years of age, having been more than 40 years in the government service, proved a pleasant, courteous, companionable man, of intelligence, tact, and a fair sense of honor. For 16 months he administered the duties of his high office with absolute impartiality, and integrity, honorable alike to his own government and to the rights of his foreign paymasters; but the ways of official life are unscrutable, and without warning or premonition of any kind, the services of Saleh Effendi, the most honorable of his line, were suddenly ended on the 28th. of July, 1894.

The method and manner of the change were mysterious, precipitate and humiliating to the outgoing official. Saleh Effendi received no tidings of his removal until his successor suddenly appeared and read his commission to the astonished man who promptly committed the records, and treasures of his office to his successor and departed with all his goods two hours later of the same day.

The first news of the change was an appeal made to me to furnish conveyance and portorage for the new incumbent of the office. It was made by a strange soldier who under escort of one of our own soldiers came to me at the scene of the excavations.



Out of breath he came, and he had evidently come on a great mission. When he had recovered his breath, and had regained the use of his tremulous speech, in fitting terms he presented the salaams of one Daoud Effendi of illustrious lineage, a man of valor and of mighty deeds, in short a conquering hero who came clothed with authority to supercede Saleh Effendi as the duly accredited commissioner of the government to the American expedition excavating in the mounds of Niffer. He demanded for himself and for his female slave two horses, and the services of eight or ten men to bring his household goods and gods to our abiding place in the desert. Meantime with his manservant and his female slave he would continue to occupy the noble ship that had brought him from Daghara, and that now lay at anchor on the borders of the great marsh three quarters of a mile away. Having no horse at my command, I confess to having so far forgotten the grandeur of the occasion, and to have been so much under the influence of an evil spirit, as to have smiled at the approaching humiliation of a proud official, who could find no horse to bear him in state to his new office; which act on my part so touched the offended pride of the soldier that he poured forth in voluble accents the story of the great man's great lineage and greater deeds, and finished his speech with the unanswerable argument that the dignity of his high office would not permit the new commissioner to walk from his boat to the castle.

The soldier's loyal appeal did not fail. It was founded in the fitness of things. Three-quarters of a mile was too far for official dignity to walk. Swift footed messengers were sent to find and fetch two Arab mares. They went their different ways in animated haste. All the region round about us they scoured with scurrying feet. With eagle eye they scanned the whole plain from afar. Each neighboring camp was searched in vain. There was no sight nor scent of an Arab steed. Not even a braying donkey was heard. One by one the weary messengers returned from their fruitless errand. Their missions had failed. The soldier was disheartened. Two hours had passed, and still the mighty hero sat in silence and in state on the deck of his chartered ship awaiting the arrival of the Arab steeds.

The look of manly despair on the soldier's face foretold his sense of disappointment over an humiliating inauguration into office, of a mighty man of renown, unless two noble steeds could somewhere be found to convey him castleward with due pomp. With an eye to the fitness of things, and a mind attuned to the necessity of lawful gain, one of our Arab guardsmen now consented, for a prepayment of money, to bring to our aid a well trained mare, a mare of high pedigree, suited in all ways to the grand occasion. The mare was brought and the pomp of ancient days was about to be revived at modern Niffer, and, for aught one could prove to the contrary, to a believer in the transmigration of souls, a veritable Sargon, a Gande, or an Ur-Gur, was about to reclaim his ancient prerogatives, and, after an intimate personal acquaintance of several months, it seemed natural and reasonable to account for the differences between the ancient King and the living commissioner on the ground of the rapidly degenerating tendencies of successive transmigrations, thus suggesting that the doctrine of evolution as generally accepted, should be reversed.

Three months did this worthy official with his black slave and companion haunt the castle walls at Niffer. He, too, was in due time relieved from his duties of his office with a suddenness that is

truly characteristic of the ancient world, with its mixed democracy, grafted upon its native despotism, inherited direct from Sargon through the fickle Xerxes, whose restless spirit in all its ferocious cruelty sways the minds and prompts the deeds of multitudes of people today, as in all ages of the world's history it has done, and as it will doubtless continue to rule the hearts of these illiterate Ishmaelites of the Babylonian marshes until the dawn of a better era shall train mind, hand, and heart, in a better way of life.

Mahmoud Effendi was the next to come into the field and soon proved himself the embodiment of evil, an expert in every form of corruption, who used his official and personal influence in the interests, not of his government, nor of right, but for his own unrighteous gain and use.

This commissioner, having failed in his diligent efforts to get us so entangled that our irade would naturally and must logically be withdrawn, next tried to enlist our workmen to slip away antiquities from the trenches for himself. Failing in this, he next attempted to induce them to desert us.

Finding his schemes discovered, one after another, he began to excite the religious hatred of a fanatical people against us, and at the same time awaken the cupidity of the Arabs, born and bred to a life of plunder and revenge.

Mahmoud is openly acknowledged to have been at one time the authorized procurer of false testimony, the conductor of bribery in the courts of law, when it was his duty to arrange between the court and its clients for the conduct and judgement of the cases brought before it, and to procure and train for each trial professional false witnesses known as such by all men.

During the last three weeks of Mahmoud Effendi's commissioned stay at Niffer, he sat quietly in his tent under the shadow of our castle and passively awaited the coming of the next meal and the arrival of his successor. It being generally known that he was to be removed from his office, Mahmoud Effendi had no further influence among the Arabs and therefore no power to do us evil.

Contrary to his avowed intention, Mahmoud Effendi quietly stole away from Niffer in the night at about the hour of midnight, and decoyed away with him two of our government guards, against my open protest made the previous evening. Rising before the day dawned, it was an unspeakable relief to find the space where his tent had stood, no longer covered with canvas and to certainly know that the man who had committed so much evil under shelter of a noble office, had finally departed from our precincts, with no power, beyond that of personal influence exerted from a safe distance, to make further mischief for the expedition.

Mustapha Effendi, the fourth commissioner to Niffer, arrived at his post of duty, the second day of May, 1895, and on the following day, relieved Mahmoud Effendi from the neglected duties of his office, and the arduous task of drawing the commissioner's salary.

Visit to Baghdad.

After one year of unceasing toil, under conditions which were trying alike to mind and body, the writer, left the constantly changing scenes of action at Niffer for a much needed season of rest and recuperation. Saleh Effendi, the commissioner and the steward or confidential agent, who has ever and at all times and in all ways, proved himself faithful to the highest interest of the expedition, and worthy of every personal consideration, were my only travelling companions.

From Niffer to Hillah we chose the water route and with a favoring south wind we were but two days in making the journey against the strong current, for the inundation of the Euphrates was at its height. From Hillah we engaged a caravan of mules and horses to convey us, with our baggage, in three days to Baghdad.

The first two days journey to Khan Mahmoudieh was made without exciting incident. The third day was lost in a fruitless attempt to continue our journey by caravan to Baghdad. At a distance of two hours from the caravanserai, we encountered increasing floods from the Euphrates and were compelled to return to Khan Mahmoudieh for another night, where hundreds of Persian pilgrims returning from Kerbella, perforce remain, or have turned back again to the desert city made forever sacred to them by the untimely death of Hassan and Hussein of sweet memory to the Shiite Mohammedans. Many Persians and Indians here entreated us to assist them to return to Baghdad, since without the consent of the government they could not charter boats to transport their caravans over the tumultuous waves.

The following morning we set off for Seleucia, with a large company of soldiers, and Arab guards. The region being then infested with a roving robber tribe of Arabs, the government refused to permit us to go with a less escort; and the event proved the wisdom of the caution. Two hours from Khan Mahmoudieh, we passed a low mound of small size, whose surface was covered with iron slag, a smelting furnace probably once occupying the site. At Seleucia we could not get near the river's bank, for the water had overspread the country on both sides to great distances. Fortunately for us, a large sailboat (sefina) was near at hand. For 300 piasters we chartered this sailboat to take the party down to Jezrieh where we were to board the first steamer up the river to Baghdad.

As good fortune would again have it, we met a steamer before sunset, and succeeded in attracting the captain's attention though the steamer was far distant from us. The steamer crossed the broad swiftly flowing floods of the Tigris to the spot where our open craft was moored to the river's bank. We were taken aboard on Thursday evening, some five or six miles below the site of ancient Seleucia, and scarce forty miles by the winding river's course, and we struggled against the mighty floods for 42 hours until Saturday noon, when we arrived safely in the city of Baghdad; then a veritable island surrounded with rapidly spreading floods and inland seas reaching as far as the eye could discover.

The government and the people were making every effort to raise the dikes around the city and so far as possible keep out the swelling floods from the streets and houses of the city. No caravan could enter or depart from the "Glorious city of Baghdad"; while over the deserts and buried highways toward Persia, Babylon and Constantinople, as well as up and down the river

plied every sort of craft from the ancient coracle of the Assyrian monuments, to a modern sailboat and flat bottomed steamer.

Where the Diala united its waters with the Tigris only one great sea of boundless extent could be seen from the deck of our steamer. Thousands of acres of wheat and barley were submerged or swept away by the angry stream. Cattle and sheep in great numbers perished, and many habitations were destroyed. The government powder mills a little above Seleucia collapsed just before we passed them and the magazines of powder were soon swept away in the mighty current against which our steamer scarce made one and a half miles an hour at any time, and we saw people fleeing for life through the rising floods, that had cut them off from dry land, and at the same time carried away their flocks and herds and household goods in the swift and angry current. Thousands of drowned bodies of sheep and many lifeless forms of cattle and buffaloes were carried away to feed the fishes of the deep sea. On an island in the sea of flood, a drenched jackal was seen to wearily wade by discouraged leaps in vain endeavor to find some spot of dry land, but none was to be found, yet he was loth to leave the island and swim the strong current.

Such a flood had not visited Baghdad, it was said, within the knowledge of the present generation of its habitants.

It was therefore after many trials and tribulations and with much vexation of spirit our little party arrived in Baghdad on Saturday, the 21st. of April, 1894, having been six days en route from Hillah. We began the journey from Hillah by caravan, but on account of the rapidly increasing floods, we changed our mules for a sailboat at Seleucia and finally entered the island city after an experience of eight hours in a sailboat and 42 hours in a Turkish steamer, which made an average speed of about one mile per hour against a current of terrific force, although the track of the steamer lay outside of the main current of the stream.

In the city of Baghdad, the modern metropolis of Babylonia, one month of needed rest and change was much enjoyed after my lonely and desolate life in the deserts and marshes of Afajland, with no companion save the half savage and wholly treacherous Arabs of Robberdom and Murderland. Few people know what it is to live alone, and no one who has never attempted to live without companionship among brutal, scheming, thieving, and murderous tribes of feud-brewing robbers can ever know the mental tension that was required to maintain the equilibrium of security to life and coveted property. There was danger on every side, and while cholera slowly crept toward us with foaming mouth and open jaws on its grewsome errand of destruction, there seemed to be no escape from the narrow aisle of death. There was not one soul about me who could speak the language of my childhood, nor any European tongue; no one who could read or write a word of any language; none to share, and by sharing stimulate to great and noble thoughts; no refined mind to suggest or receive a quickening sentiment nor a congenial life to breathe an inspiration or an aspiration. I was alone with only the narrowness of a solitary existence for company. And yet I was not alone.

The time was employed in replenishing the stores and supplies --- a task which requires time in the oriental world where all things are slow-going. Meantime my own health and that of the steward had been greatly benefitted by reason of the change of scene, air and surroundings.

One of the happiest results of the sojourn in Baghdad, and one productive of much good, was the meeting with Mr. Joseph A. Meyer, who was journeying from India to the Mediterranean sea-coast via Baghdad.

The work done at Niffer had been much hampered by the need of some one on the ground versed in Architectural and mechanical drawing, and when Mr. Meyer with his wealth of practical experience signified a willingness to go with me to my desert home and give the expedition the benefit of his further and fuller study there, I gladly availed myself of the benefits which his labor and companionship offered, and he was at once made a member of the returning party.

With the addition, therefore, of Mr. Meyer and a Persian cook, to its staff, the expedition left the "City of the Enchanters", "The City of Gardens", at a late hour on the 21st, of May and encamped at night under the shadow of the decaying tomb of Zobeida. This tomb is a lofty structure of pine-cone shape. It lies beyond the city walls on the west bank of the Tigris, and marks the resting place of Haroun-al-Raschid's beautiful queen, famous in the history and traditions of the Babylonian glory.

Owing to the floods which still prevailed, it was necessary to proceed by sailboat from Zobeida's tomb, a distance of some 16 or 17 miles, to Khan Mahmoudieh where a caravan of mules awaited us. The voyage consumed nearly all day, from earliest dawn, and was without exciting incident except that the boat stuck fast on several ridges that were crossed at an unlucky point.

It was a desolate sight to sail over that great inland sea which had so recently swallowed up thousands of acres of waving grain, and destroyed fertile gardens by the score. Nusset Pasha's well-kept garden and orchard of young orange, lemon, fig, pomegranate and other fruit trees at Khur were destroyed, and the buildings belonging thereto were hour by hour crumbling in the waves, or being swept away by the currents. Here and there the higher hills and ridges that remained from the embankments of earth, that were formed by the original digging and frequent clearing of the ancient canals, appeared as islands in the waste of waters.

We arrived in Hillah Thursday morning the 24th. and after reengaging the former workmen and several new members, continued our journey on Saturday by boat to Niffer, whither we arrived the following Monday at midday.

It required two days to remove our stores and supplies from the boats to our house, and after this task was completed, Saleh Effendi and I paid an official visit to the mute-serif of Divaniyeh then encamping with a battalion of soldiers near Niffer. The mute-serif Said Pasha, was courteous and quickly executed the orders we had brought from the governor-general of Baghdad, promising to visit us at a later date.

The entire community, from sheikh to the humblest individual openly rejoiced over our speedy return. The people had discovered that our absence was a pecuniary loss to them and they thought of our return as their gain in riches. The copious rains gave abundant promise of bountiful harvests and they ascribed these blessings to our presence among them, saying that no

such plenteous harvests had come to them since the previous expedition of 1890 had left them to witness drouth (*sic, drought*) and to suffer dearth.

Our house was found to be in good condition and a sufficient guard stationed around it. The doors and windows were unbroken and nothing disturbed within the house.

The next day the workmen built houses for themselves, made a guardhouse and a guest chamber in one structure, and roofed over the court of the castle, making all things ready for the approaching heat of summer and a long residence at Niffer.

### CARAVANSERAI.

The long chain of mounds known on the map of Niffer as XI was first examined in the summer of 1894 by means of a combined trench and tunnel, cutting open trenches into the slopes or bases of the mound on its opposite sides, and tunneling through the higher part of its long ridge. The trench, which was a continuation of the tunnel in opposite directions, descended three feet below the level of the plain, and failed to discover the foundation of the structure.

The entire mass of the long ridge-like mound was found to be a great and massive rampart, or an enormously thick and solid fortification wall, built of crude or sun-dried bricks. The wall was forty five feet in thickness, and the splendid crude bricks composing its impregnable mass were of almost incredible size, measuring twenty inches in length and breadth and three and one half inches in thickness, while in solid contents each brick contained 1400 cubic inches.

In color they are dark gray, and in quality they are unsurpassed by the work of any later King. Indeed they are superior in quality to the bricks of any King after the time of Ur Gur, one of the greatest builders of antiquity. They were made of clay, thoroughly mixed with straw, and dried in the sun without cracking, and are therefore, firm in texture, and of regular form, constituting by far the most solid and tenacious mass of unbaked bricks that we have ever attempted to cut our way through.

In the roof of our short tunnel, three of these unbaked bricks bore on their down-turned faces the clearly stamped impression of Naram Sin's well known brickstamp.

Excepting the recently discovered temple foundations underneath Ur Gur's ziggurat, this is by far the oldest mural or monumental construction, that has ever been found and identified in Babylonia. Its certain identification marks it as a discovery of great importance to Babylonian Archaeology.

The simple discovery too, that crude bricks were stamped in very ancient times explains a matter that has greatly puzzled me and we hope that in the near future it may lead to the solution of the priority and succession of the earliest known Kings, and to the discovery of rulers still unknown to us.

The face of the wall was thoroughly exposed to view down to its foundation, which was laid on solid clay below the water level, by some two feet.

The foundations of the wall were built of worked clay mixed with cut straw, and laid up en masse with roughly sloping or battered sides, to a total height of sixteen feet. This base is about thirty five feet wide on top, and forms the true foundation of the crude brick wall.

Directly upon this foundation or base, Naram Sin began to build his wall, of stamped bricks, thirty five feet wide, and six courses high.

For some reason unknown to us, the builder changed his plan at this point, and widened the wall by an addition of about ten feet in the thickness to the inner face of the wall making an entire thickness or width of the wall about forty five feet.

Upon this new or widened base a new wall of equal width was built to an unknown height, by Naram Sin, whose stamped bricks attest his workmanship.

In the construction of the original base, sixteen feet high, and thirty five feet wide, there is nothing to furnish a clue to its authorship.

Had the superstructure been built upon the original base, as it was begun, it would naturally appear that the entire structure from its foundation was the work of Naram Sin. Yet because Naram Sin changed the proportions of the wall, it may with some show of reason be assumed that Naram Sin himself began to build upon the foundation of a predecessor, perhaps of his father Sargon, with the intention of completing the original design, and that his own ideas then began to fix upon a different, or at least a larger plan, requiring a wider base to build upon. Though the plan is hidden in the mists of ages, it is by no means impossible to form a reasonable conjecture from the new facts in evidence.

Great numbers of solid and hollow terra cotta cones in great variety of form and color were found scattered throughout the debris that had collected at its base. Among the cones were also found fragments of several water spouts of terra cotta, homologous to the classic gargoyle in Greek architecture.

There can be no doubt that both cones and water spouts were used in the wall and its parapet, or in the superstructure built upon the wall.

If in the absence of more positive evidence, one doubts or denies the existence of buildings on top of the wall, he must at least account for the water spouts by supposing that they conveyed the drainage water from the flat summit through openings in a parapet erected on the edge of the wall. The cones would then be used in decorating the upper part of the wall, to relieve it of its dull monotony.

The spacious summit of the wall would unquestionably have been used as a summer sleeping place for pilgrims. Such elevated sleeping places are everywhere provided throughout Babylonia, and were equally esteemed by the earliest people of the land, so far as we have knowledge of their habits and architecture.

The great numbers of cones and water spouts may perhaps be sufficiently accounted for, by the requirements of decorations and drainage of the wall as a fortified rampart, but only the existence on its broad summit of buildings of some kind can, I think, adequately explain the addition made by Naram Sin to the original thickness of the rampart.

Allowing the existence of superimposed buildings on the spacious summit of the wall, it is natural to suppose that the ornamental cones were used to decorate the walls of such buildings rather than they were employed to adorn the face of a rampart or mere wall, for defence. The water spouts would be required in either case to drain the roofs of the buildings or wall of rainwater in the winter season.

There was abundant space on the top of the rampart for a double row of buildings with a street between them, or, what seems more probable, a single tier of rooms flush with the outer face of the wall, and a broad terrace before them overlooking the great enclosure or court of the immense caravanserai, filled with the swaying multitudes of men and animals.

The terrace in front of the rooms offered admirable sleeping quarters for the host of worshippers at Bel's most sacred shrine. In winter the rooms, and the roofs in summer, would naturally be appropriated by the people of rank and influence, while at all seasons of the year, and in all conditions of weather, the lower classes of people would camp in the great open space below, with their camels, their horses, their mules and their asses.

The wall, whose foundations have been examined with so much labor, was built, not to defend an inhabited part of the city, but to enclose and defend an immense space adjoining the Temple Enclosure on its northwestern side for the protection and comfort of the hosts of pilgrims who must have gathered there in thronging multitudes to justify the setting apart of so enormous a space for their convenience, for this was nothing else than a caravanserai of gigantic proportions. It was in form a quadrangle measuring 450 yards in length and 300 yards in breadth and covered more than 26 acres of ground, all of which was available for the use of men and animals. I have seen no evidence of rooms in any part of the space below, nor do I think that the enclosed space was cumbered with buildings of any kind; but that it was occupied by caravans and their drivers together with the poorer people, who in all ages are wont to cling by night to the animals that bear them by day. Such is the custom of the people today.

If it could be proven from a more minute examination that there were no rooms nor permanent shelter in any part of the great enclosure such a fact would be a strong negative argument for the existence on the spacious walls of a tier of guest rooms as was suggested above. The closest search has so far failed to discover the first trace of lower rooms around the great court.

If an Oriental caravanserai were to be built today, with walls of thirty feet in thickness, a tier of rooms would be built upon those walls and the excess of width in the walls would become a useful terrace in front of the guest-chamber.

This is a type of building still used in this land, where from age to age nothing changes. It is the heritage of a remote antiquity. It was not especially bequeathed to this age, nor to any particular age, but to this land in all ages and all generations. So much we know. Yet we do not



certainly know when the type originated. Why, however, should it not have originated at perhaps the most ancient, the most venerated, and most visited shrine of antiquity; at a place and time when that style of building met the requirements of pilgrim travel in a hot country, infested with robbers, and swarming with insects? We are not required to look for a great or striking invention. The suggestion is the natural result of studying the conditions of the time, the place, and the requirements, first, of protection, second, of shelter.

That the wall was built for defence, there can be no doubt. Its original proportions were the proportions of a strong bulwark for those times. The walls for defence were doubtless provided in those early times with battlements and turrets built on the outer edge of the wall, while the greater part of its broad surface overlooking the enclosed space was a terrace, where the relief guard slept by night, and the soldiers manoeuvred in case of attack.

The line of turrets on the bulwarks of a city, would suggest a row of rooms in the caravanserai for the use of pilgrims. A story of rooms placed upon the walls would have increased the height of the rampart. A line of turrets might also have been built upon the house tops, or battlemented roofs would have given ample space, protection, and vantage ground for defending troops to manoeuvre at will.

Giving rein, for a few moments to the fancy, in strict accord with the laws of logic and science, one might picture Naram Sin walking in the cool of the day upon his unfinished wall, contemplating the finished caravanserai. He had only laid upon the massive foundation or base, six full courses of moulded bricks; but the wall now stood at least fifteen feet above the level of the plain, and its finished appearance passed in panoramic view before his imaginative vision. Perhaps he was especially thinking of a line of guest rooms to be built for winter use around the borders of the mighty court, whose uncovered space exceeded 26 acres. Under his royal feet stretched away the splendid terrace in a circuit of nearly one mile. Whatever other provisions were to be made for the comfort of weary pilgrims, this terrace at a higher altitude was to be the summer sleeping quarters for the travellers.

For six months or more every dweller in Babylonia sleeps in the open air, and takes special delight in high places, where the breezes cool the brow and drive away the pestering insects. As the evening breezes fanned his own temples, still throbbing from the heat generated within by physical exertion, and absorbed from without by contact with the heated plain, the humane monarch could but think with pride of the substantial comfort in store for his countless guests, whose lips would never cease to sing his praises, while their gratified hearts would respond in deeper chords to the spirit of a deeper, truer, sincerer worship.

Prolonged meditations of a similar character led to the wish to make the guest chambers equally comfortable for his guests. The desire brought forth the suggestion, and the suggestion was quickly followed by the decision to place the guest chambers upon the top of the wall and to widen the terrace in front of them. The chambers were doubtless placed on the outer edge of the wall and the usual battlements rose from the flat roof of the guest chamber. Having decided upon this plan, the haughty King forthwith widened the foundations of his already magnificent wall in the manner related in the foregoing pages.

Whatever one may think of the above theory, he cannot deny that it gives a reasonable account of the possible history of the growth of the enormous caravanserai of Babylonia and adjacent hot countries.

The construction of so gigantic a building by Naram Sin, clearly proves that even at that remote period of time, not yet dreamed of by our forefathers, the worship of Bel had become well established in the land; that his shrine at the ancient Nippur was then famous; and that great multitudes of people resorted hither to worship at his most sacred shrine.

This greatly increases the importance of the early history of Tel Anu (*sic*) or Nippur both as a seat of religion and the residence of Kings in the earliest times.

If the friends of the expedition feel disappointed because no older foundations could be identified beneath Naram Sin's well known bricks, they should not forget that the very purpose of the building, placed beyond the previous limits of the city, make it impossible that it should be identified with the earliest history of the city; it belongs rather to the days of her greatness and glory.

No such stupendous building would be built until the tide of travel had already justified its existence.

That great King and mighty builder Ur Gur, repaired that building upon its original foundations, nor were its borders ever enlarged, indicating, though by no means proving, that the tide of travel as established in the earlier reign was never greatly exceeded at any later period of history.

At the present time no important construction of wall or edifice within the Temple Area, can be identified with the name of any King of the Sargon dynasty.

The twenty five brickstamps of King Sargon which have been found at different times, within the Temple Area, indicate that important constructions of that King once existed in some part of these mounds. It cannot with reason be doubted but that abundant ruins of his constructive skill will be found before the Temple Enclosure shall be thoroughly explored. Indeed it is almost certain that extensive buildings of Sargon and of his son exist somewhere within the vast accumulations of the Temple Hill.

Where are we to look for such constructions? Shall we find them toward the northern corner of the Temple Enclosure? Certainly it appears to have been the most imposing corner and for some undiscovered reason, was the strongest point of the fortified enclosure even down to the time of the great rebuilding of the ziggurat in the cruciform style. When the Temple Area was enlarged the northern corner was rebuilt upon its ancient foundations. There was doubtless some reason which we do not now know, but which we can by exploration and study come to understand for this fact.

A pavement containing the stamped bricks of Sargon and Naram Sin was found and several times mentioned during the summer and autumn of 1894. I have now come to regard that pavement as the work of Naram Sin himself. It is true that the great crude brick platform of Ur Gur practically rests upon that pavement; but in the enclosing wall of the caravanserai the bricks

of Ur Gur lie directly upon the bricks of Naram Sin, showing that the relation of the pavement to the later platform in the former instance does not weaken the evidence of the inscription found in the pavement itself.

There would seem to be greater reason for scepticism of authorship in pavements than in more solid constructions, and indeed in all departments of archaeological research a well-tempered conservatism will avoid many errors for others first to stumble over and then to correct. However, unless contrary evidence shall be obtained, we may henceforth regard this pavement as the work of Naram Sin, and for the present this may be treated as an established fact.

Above this pavement were 38 feet of constructions and debris, while below it are 30 feet of accumulations. If, then, this pavement is the work of Naram Sin, and we have no standing ground to challenge the statement, a most difficult problem awaits solution by the chronologist of future generations, a problem not to be slurred, nor readily solved by the conceit of man: when and by whom were the first settlements made at Nippur?

It will require the united efforts of many generations of devoted philanthropists and scholars to ravel and write the outline of the history of this time honored city; yet I am by no means assured that the present generation will not declare its golden age to include the reigns of Sargon and Ur Gur, beginning with the former and ending with the death of the latter, or soon after that event.

This will appear to some a startling thought; to others wholly wild and visionary; but when the facts are gathered there will be found many proofs, if I rightly interpret the influence of those epochs in the growth of this city and in the development of its art as traced in these hoary mounds, replete with the marks of time.

The archaic altar stands just below the level of Naram Sin's pavement, though the pavement never covered it. The primitive curb in front of the altar extended far under the pavement and was three and a half feet below it. The top of the early arch was buried under eleven feet of earth directly beneath this self same pavement the bottom of the arch resting about four feet lower still. The early edifice, 23 feet square, underlying the eastern corner of the ziggurat lay immediately below this pavement. The age of these objects can only be conjectured at the present time; but it is safe to think of the latest of them as antedating by more than a single century the laying of the pavement, and what shall we say or think of the hoary arch in its archaic splendor with its eleven feet of super-incumbent earth to separate it from the still venerable pavement of a King who was but recently known?

The terra cotta water-cocks were found on the level of the higher part of the arch, and a well-wrought copper nail was found in the same level, and belongs to the same early time, anterior by many centuries to the time of Sargon, if we may trust our deductions concerning the pavement.

In describing the wall of Naram Sin, mention should be made of the discovery of a bubbling spring at the foot of the enclosing wall of the caravanserai. On either side of the spring are still seen the brick platforms and curbs where the water pots rested.

The bricks have not yet been disturbed; but they appear to be the half bricks of Naram Sin measuring  $15\frac{1}{2} \times 15\frac{1}{2} \times 3\frac{1}{2}$  inches, the half brick being less than one half the width of the whole

brick to allow for mortar between the edges of the two halves which would then equal in surface a whole brick. The spring was on the northeastern side of the great open court, and was neither covered nor enclosed in early times.

After the court had become filled to a depth of about three feet, a diagonal wall of burned bricks, eighteen feet long, and six courses high, placed on a raised base of clay, was built before the spring, to divert the course of drifting sand and debris from the spring back into the court. The wall was built of small bricks, closely resembling the bricks of the nineteenth century. They measure  $8 \times 3 \frac{5}{8} \times 2 \frac{3}{8}$  inches in average dimensions, differing but slightly in size and proportions from the bricks used today in the cities of the new world.

There is no clue to the origin of these bricks. It is certain that they belong to early not to later times, and they are the smallest Babylonian bricks that have ever been discovered. Comparing these with the large burned bricks measuring  $20 \times 20 \times 3 \frac{1}{2}$  inches, we seem to have the extremes of size in the art of Babylonian brick-making. The discovery of the smaller bricks is a great surprise to me and gives point to the expression that "There is nothing new under the sun". Even fortified with this trite saying, one is scarcely prepared to find that the mould for making modern bricks has been handed down to the present day with but little change from the earliest times. Yet precisely such a thing has happened in more than one instance. Our own foot measure is a heritage to us from ancient Babylonia, and differs but little from the older unit of measurement.

Joseph A. Meyer.

It was our rare good fortune while in Baghdad to secure the services of Mr. Joseph A. Meyer of Canton, Ohio; a young man of thorough training in architecture, and varied experience in the study of living monuments in the countries of Europe, Egypt, Turkey and India.

He was a graduate student in the department of Architecture, Massachusetts Institute of Technology, Boston, and held a travelling fellowship for two years, and was a candidate for an advanced degree. Mr. Meyer proved to be a good and efficient worker, a companionable fellow, and rendered great service to the expedition. Too much could not be said of his devotion to its every interest so long as physical strength endured.

Throughout the long, hot and trying summer Mr. Meyer's strength was equal to every demand made upon it, and it was not until the fierceness of the heat had abated in the month of October, and the cooler nights had brought the chilling mists and blue vapors from the boundless marshes of Afajland, and had laid under tribute to Prince Miasma many a robust Arab, that Mr. Meyer's health suffered the first shock of disease. However complicated his disease may have become, there can be no reasonable doubt that its origin was due to exposure to the malarial atmosphere of the night, with a tendency to neglect the proper precautions of clothing and sleeping.

Day by day his physical powers of endurance gave way, until his lymphatic system was reduced to great weakness. It was absolutely certain that without medical treatment, there was no hope of permanent recovery. His condition was critical, and although it seemed a serious matter to send him to Baghdad, it seemed a more serious matter to keep him longer at Niffer. He was

accordingly sent away on the 23rd. of November 1894, under the care of the cook, and the most faithful of the soldiers, and committed to the professional care of Dr. Sundberg, U.S. Consul at Baghdad.

Mr. Meyer was carried in a chair from our house to the water's edge, and comfortably placed in a boat for Hillah. From Hillah he was to be carried in a covered litter, if one could be secured, and a swift messenger was to be dispatched from Hillah with a letter to Dr. Sundberg.

I saw him comfortably lodged in the boat which was to carry him to Hillah, but could go no further with him, and under God's care, committed him to the hands of others.

Aside from the matter of companionship, which has a double meaning and value to one isolated from all civilized men, Mr. Meyer's services were especially needed and consciously missed every hour of each working day during the remainder of our long and lonely days at Niffer.

A letter dated at Baghdad on the 2nd. of Jan. 1895, announced the death on December 20th. and burial in the little English cemetery on the following day, of Joseph A. Meyer, aged 38 years. The loss to the expedition was far exceeded by the personal loss to myself, of an efficient helper and a genial companion, whose life was exceptionally free from every form of evil.

The whole influence of his noble life, in every act and word, was cast on the side of virtue, purity and right. The tenor of his speech was uplifting, nor can I recall a word nor act of his that need make him blush in the presence of his Holy Maker and Righteous Judge.

### Oldest Civilization.

From the vast accumulations of later ages, from the comparatively high foundations of Ur Gur's monuments, from the excellence of still more ancient ruins, and from many other indications of lesser importance, it is becoming more and more apparent that in very early times, the ancient city of Nippur was the chief metropolis of Chaldea, and possibly was the residence of her earliest Kings.

If this be considered a visionary thought, there is abundant and rapidly increasing evidence to the highest antiquity of the primitive city, whose foundations still lie concealed under the venerable and hoary civilizations, which have successively followed in due order of events. And let us hope, that the city now in process of excavation, will yield results of great value to History and Art and all allied sciences, so far as they may help to explain the beginning, growth, and decay of this most ancient of great cities, whose importance and antiquity ever assume larger proportions, as its vast accumulations of debris slowly reveal, in broken accents, it is true, but yet in clearly enunciated syllables and catchwords the story of its unwritten history and life, of its people through uncounted ages.

At different times and in different places, but always above the great platform on which Ur Gur placed the foundations of his temple, have hitherto been found several brickstamps and Doorsockets of King Sargon, who is just emerging from the mists of uncertain history, and seems to be steadily marching down the ages far from the primitive civilization of the human

family, without in any degree lessening the mighty spans of millenniums and centuries that separate him by a dignified and hoary antiquity from modern times; and yet by the excellence of his work, and his correct knowledge unite him more closely to the spirit of our times. I cannot doubt but that a complete exploration of the Temple Enclosure would give us many more facts of Sargon's life and work.

Below this same platform and nowhere else several of Sargon's bricks were found out of their original position, and no clue has yet been discovered to the origin of these bricks, nor can we identify any construction of his.

It is very plain that Sargon's constructions lie below the Ur Gur platform, and it is equally clear that both his Door-sockets and brickstamps were for a long time preserved, and appropriated by his followers.

So many small objects were found in the body of the large crude bricks used in the construction of the ziggurat, that one is irresistably led to the conclusion that the people cast into the soft clay pit, or more probably into the bricks while they were being moulded, their amulets and other small objects of religious significance, just as at other times the people cast their amulets and ornaments into the foundations of palace walls and temples, as an act of piety in the dedication of an important building.

Near the northern corner of the ziggurat in its second stage was found a copper nail whose head was covered with thin beaten gold. A gold bead was found on the northwestern side in the same stage, and besides these, many other articles of no special interest in themselves have been found. One of the strangest of these stray articles found about one foot below the skulls embedded in mortar, was a fragment of green glazed pottery, similar in color, but in quality superior to the green glazed pottery of the latter part of the middle ages and of more modern times. We have thus acquired good proof that this green glazed pottery of later times had its origin in ancient art, though when it was first produced no one can say.

Another fragment of red pottery and a fragment of a bronze axe blade show a decided Greek influence. A rudely inscribed vase fragment of marble was also found embedded in the mortar, and besides these rude seals, beads, and ornaments in great variety were found both in the moulded bricks and in the clay mortar joining the bricks of the last reconstruction of the temple.

In all this mighty maze of over lapping and interlacing constructions, that has been gathering through unnumbered generations of the children of men, it is impossible to produce results as rapidly, and as regularly, as if the accumulated debris were only sufficient to preserve the buried records and works of historic art from the decay of wind and weather. But the progress so far made on the temple is satisfactory, and when the exploration shall have been completed, I trust the results will justify to the promoters of the expedition, the prolonged labor expended on the exploration of his beloved E-Kur as restored by the greatest of the so-called monumental Kings, whose name and fame will evermore be inseparably connected with the ancient city of Nippur in the days of her ascending glory.

Several months of earnest thought and unstinted labor have already been cheerfully given to the study of the stages of the ziggurat, with the conviction that its complete exploration will promote the study and increase our knowledge of the history of Babylonian art in its more ancient forms.

I should like to see systematic excavations, to extend over a period of three years, undertaken on the temple enclosure, not to be excavated section by section, but carried down as a whole to distinguish the different epochs of its history, each well defined level to be thoroughly explored, sketched, photographed, and described, before the excavation of any part should be carried to a lower level.

This method would be more satisfactory, and less likely to lead to confusion of strata and levels, but it will require the expenditure of money, time and labor.

### The Ziggurat.

The rectangular ziggurat of Ur Gur is a solid mass of crude bricks, with a peripheral foundation of burned bricks, four courses high and eight bricks wide, or approximately one Babylonian foot in height and eight Babylonian feet in breadth.

The entire ziggurat, including its peripheral foundation of burned bricks, was solidly built upon an immense platform, varying in thickness from seven to eight feet, of crude bricks of the same color, texture and mould, as the bricks of Ur Gur's superimposed ziggurat.

This great platform constituted the Temple Enclosure, and formed the pavement of the court itself. On each of its four sides the platform was bounded by an enclosing and fortifying wall, in which there were several towers and bastions. The so-called "Tower numbered 63 on the large map of the Temple and its environs proves to be a later bastion built upon an original foundation in the enclosing wall of Ur Gur's time, and marks the limits of the great court not only in the time of Ur Gur but also the days of Sargon and his predecessors.

Whether at that early date there was an outer and an inner court is a subject for future investigation, and upon which I would offer no theory at the present time.

There can be no doubt that the immediate space about the ziggurat, known as the court of the temple, was in early times a fortified enclosure, as indicated by the number, position and form of the bastions in the enclosing wall of Ur Gur's time, and which in a thorough exploration of the Temple Hill will be laid bare and the full scheme of the fortified enclosure established in detail.

In the massive strength and grandeur of its proportions the ziggurat of Ur Gur, that versatile and energetic monarch whose name has become a household word and whose fame glows with a brighter lustre as one after another the monuments of his constructive genius and the handiwork of his marvelous skill become known to us---- the ziggurat with its architectural embellishments has become the central object of our pursuit and has consumed the greatest share of our time and received our first and chief care, while it attests the marvellous skill and genius of the builders and rulers of antiquity. As restored by Asshur-Bani-Pal the ziggurat, in round numbers measures

125 by 190 feet; its unbroken periphery measuring 630 feet, being slightly less than the dimensions of Ur Gur's temple at Mugheir or Ur of the Chaldees.

#### Constructions of Ur Gur and Naram Sin.

Superimposed upon the splendid wall of Naram Sin, and composing the ridge of the rampart, are still plainly visible, over thirty courses of Ur Gur's well-known bricks, identical in form, color, texture, and hardness, and of the same mould as the small crude bricks which compose the body of the ziggurat.

There is, in this rampart, no visible trace of any intermediate work between the time of Naram Sin and Ur Gur.

Likewise within the Temple Area there is no certain trace of intermediate work between the time of Naram Sin and Ur Gur, except in the single instance of the early storage room or treasury vault, discussed in another chapter.

The earlier vault seems to have been built by some monarch who lived between the time of Naram Sin and Ur Gur, yet the latter builder built directly upon the pavement of Naram Sin the solid crude brick platform which supports the splendid mass of his (Ur Gur's) towering ziggurat.

The pavement of Naram Sin within the Temple Area consists of two courses of bricks. The lower course contains many thumb-marked bricks  $11 \times 7 \times 2$  inches. These bricks belong to a period between the use of the primitive bricks of the very ancient curb and the time of Sargon. It is these bricks which were mentioned by Dr. Peters under the western corner of the ziggurat in the year 1890.

Besides these unknown bricks the lower course also contained imperfect bricks of both Sargon and his son. The upper course was composed wholly of the bricks of Naram Sin and of his father in the ratio of about three of the former to one of the latter. Some of those noble bricks  $15\frac{1}{2} \times 15\frac{1}{2} \times 3\frac{1}{2}$  inches to  $16\frac{1}{2} \times 16\frac{1}{2} \times 3\frac{1}{2}$  inches in measurement were colored red. The color slowly faded after exposure to air and sunlight.

#### Crude Bricks of Ur Gur.

Crude bricks vary considerably in each of their dimensions. Moreover, the roughness of their faces and edges, as compared with burned bricks makes it impossible to give exact measurements.

The late Mr. Meyer in his notes gave their approximate dimensions of Ur Gur's crude bricks as  $9 \times 6 \times 3$  inches.

Having measured hundreds of them I find them to exceed the above measurements; but I have found no specimen to agree in three dimensions with the measurements in round numbers adopted by Mr. Meyer. I have found hundreds of specimens approximating ten inches in length,



and others nearly seven inches wide. Their average may be accepted as  $9\frac{1}{2} \times 6\frac{1}{2} \times 3\frac{1}{2}$  inches. Yet it is convenient to speak of them in round numbers and we shall use the measurements adopted by Mr. Meyer. In the picture before us, the eye quickly discovers the roughness and variance of the bricks and at the same time, may test the general accuracy of my measurements; for, knowing the height of the arch one may count the courses of bricks, and making allowance for the mortar between them a close estimate of the thickness of the bricks themselves can be made from the picture.

In the manufacture of these bricks, which were made in almost countless numbers, many moulds were doubtless used. The moulds appear to have been made as everything else in this part of the world is today made, without attempt at precise measurement, and the brick moulds under discussion, prove the antiquity of the present method of "Thumb measurement," and measurement by the eye. Such a measurement is the cubit.

"Cubit."

For larger measurements the cubit from the fingertips to the elbow is still employed, and when applicable, the outstretched arms, from thumbs end to thumb's end measured across the chest is considered as four cubits. These are the measures of the country still in use, and while the average can be ascertained, and exactly stated in terms of modern standards of measurement, in actual practice measurements vary (*sic*) slightly with the persons who measure the article.

The Oriental has a quicker conception of the rough and approximate methods of his ancestors, employed from the beginning of the world, than he has of any fixed standards, to which all measures must be referred.

#### Construction of Platform of Ur Gur.

The so-called platform of Ur Gur was built of crude bricks of the regular size carefully laid in regular courses in a mortar of tenacious clay under all the super-structures of that period, which the platform was designed to support. Under the open court of the Temple Area, the platform was made of large lumps of kneaded clay brought from the clay-bed, and, in a moist condition, laid up en masse, in two thick layers of about four feet each in thickness as garden walls are often laid up en masse at the present day, in all parts of Babylonia and in many portions of Syria and Asia Minor.

Considerable numbers of tablets were found between the layers of the platform. It would seem as if the tablets and other inscribed objects found within the body of the platform were cast into the new foundations in dedications of the rebuilt temple, a customary rite in the dedicating of any ancient building and more especially of a religious edifice such as was the famous Temple of Bel.

#### Court of the Temple.

It is made evident that the space excavated by us to the southeast of the temple was a large, open, paved space in its front, included within the temple precincts. It was an open space before the time of Ur Gur; it was an open space in his day, and so it continued to remain until after the time of Asshur-Bani-Pal, and, perhaps until about the time of the great cruciform additions were made to the ziggurat, it remained an open space possibly for the assemblage of the common people. In later times, when the temple was rebuilt, the court of the temple was over-built perhaps for the residence of the priests.

There is good reason to believe that the space, now deeply covered with rubbish, to the northward and northeastward of the great excavation, is thickly studded with constructions on the level, and even below the level of Ur Gur's hoary ziggurat.

#### Relative age of Arch, Altar and Ziggurat.

Directly upon the pavement of Naram Sin is placed the great crude brick platform, eight feet thick, of Ur Gur. Below this pavement no bricks of Sargon or of his son Naram Sin have been found, nor have any brickstamps of Sargon been found below the same pavement, nor any trace or suggestion of Sargon's work.

It should be noticed that this pavement, whether made by Naram Sin or by a later King, re-using the older bricks, is the level of the top of the lower edifice underlying Ur Gur's platform; that it is three feet higher than the ancient altar, and that it is eleven feet above the foundation of the lower edifice, and fifteen feet above the bottom of the early drain and arch. The true Sargon level must be found in the level of this pavement; or at some point immediately below it, not above it, which is impossible. The great number of Sargon's brickstamps that were found in the precise level of the pavement while below it no trace of Sargon has been found is presumptive proof that the pavement of Naram Sin marks the true level of Sargon and his son who succeeded him. I would emphasize this point in order to correct a possible wrong impression that the Sargon level is above the Ur Gur platform, where the Door-sockets and brickstamps of that King were found in the winter of 1890.

The altar, the curb, and the lower edifice, and the drain and arch, are all much older than Sargon and belong to dynasties of Kings long anterior to the time of Sargon; but by whom they were built, must, I think, long remain a mystery.

The water vents were also found in the loose earth on the level of the foundation of the lower unknown edifice which fact gives to them a venerable antiquity. They must precede by at least several centuries the time of Sargon the first, or, as his name ought to be written, Sargon the Great.

#### Conduit.

After the very ancient Archaic arch discovered within the precincts of the temple one of the most important discoveries in Babylonian architecture is the drainage system of Ur Gur's

venerable ziggurat. The body of the ziggurat itself was built of crude or sundried bricks in several solid stages.

In the middle of the lower stage of the ziggurat, on its southwestern side, in a perfect state of preservation, was found a conduit of kiln-burned bricks. Its office was to convey the rainwater that fell upon the terraces of the great ziggurat in channels of burned brick to the gutter below, and to a safe distance away from the perishable mass of sundried bricks. In appearance it was a double columnar structure of kiln-burned bricks with a central strengthening block slightly above its middle point. It was built into the body of the ziggurat flush with its face. Both face of the ziggurat and of the conduit have a batter or slope of one in four, or three inches in one foot.

Figure 20 gives a sketch in perspective of the face of the conduit as it was discovered in the façade of the massive and venerable ziggurat.

The lower platform of sixteen courses of kiln-burned bricks, in front of the more imposing conduit at its base, did not belong to the original structure; but was around three sides of Ur Gur's building by one of the Cassaeen (*sic*) dynasty of Kings. This seems for several centuries to have remained an open platform, or a sort of basement terrace, and finally to have been used as the base of his casing wall of burned bricks by that alien King Asshur-Bani-Pal, who while restoring, thus enlarged, the borders of the temple, whose foundations appear to have been partially buried at that time under the accumulations of many centuries.

Figure 21 gives front elevation, plan and longitudinal section of the conduit drawn to scale.

A. represents the platform or basement terrace referred to above.

B. is a later construction, built across the conduit upon the lower and older platform underlying it.

Coincident with the building of this structure by Asshur-Bani-Pal the lower part of the conduit to the height of 11 feet to the base of the central strengthening arch C. was filled with kiln-burned bricks, among which was several stamped bricks of Asshur-Bani-Pal.

C. is a strengthening arch, or block, carefully bonded into the main structure at the point where it offers greatest resistance to the lateral inward pressure of the crude brick mass of the ziggurat in which it is embedded.

The relative position and size of this central strengthening arch or block is best understood by referring to the elevation and section on Fig. 21. The arch marked C' is 3 feet and 8 inches long on its top, and at this point the depth of the conduit from front to back is 10 feet inside, and 11½ feet outside measurement, and the vertical height inside and outside respectively are 20 and 20½ feet.

The bottom of the conduit as filled at the time in question, is very nearly on the same level as the bottom of a similar conduit, rebuilt on the northeastern side of the ziggurat by Asshur-Bani-Pal himself on a more pretentious plan, respecting its face; but of inferior dimensions, from front to back, being wholly contained within his casing wall which has an average thickness of six feet. This was built upon a platform, which is evidently a continuation of the platform A. on the

opposite side of the ziggurat. It was therefore placed in front of, and above, the base of a ruined conduit, identical in plan, dimensions, and construction, with the conduit described above, and which was the work of the same great King and builder, Ur Gur.

Its ancient orifice is still seen to pass through the basement terrace of the Cassaeon dynasty, as shown in Fig. 4, directly under the later conduit of Asshur-Bani-Pal, in which, what appeared to be the crowning arch of a niche, is now clearly seen to be the central strengthening arch or block, of a conduit in imitation of the worthy example of his illustrious teacher, whose noble work had not yet been surpassed, if indeed it had ever been equaled, though two full millenniums had rolled away since the great teacher, builder and King, had bequeathed to succeeding generations the monuments of his skill and glory.

Those two conduits are similarly placed in the centres of their respective sides, and the perfect conduit, whose explorations in the southwestern façade of the ziggurat has (*sic*) been satisfactorily concluded, is found to resemble in all essential respects, the constructions discovered by Mr. Loftus in the centre of each of the four sides of the Bowariyeh at Warka.

There is no evidence in his description to show that Mr. Loftus made a thorough examination of the construction at its base of which he writes as follows---p. 167.---“On excavating at its basement”--- basement of the edifice---“there was discovered on the centre of each side a massive buttress of peculiar construction, erected for the purpose of supporting the main edifice.”

From this it would appear that Mr. Loftus was misled by the natural impression that this construction was, and could be nothing but a buttress, because of its position in the centre of the façade, and because of the batter or slope of the face which, like its counterpart at Niffer, was undoubtedly made to correspond with the batter of the ziggurat, into which it was built.

It would also appear that for this reason Mr. Loftus failed to sufficiently examine the interior and bottom of this construction, which precaution would have given him a correct idea of its purpose in the construction of the ziggurat.

So far as Mr. Loftus gives the details of his construction, it occupies the same position in the ziggurat, is identical in plan, and construction, and shows remarkable correspondence in all its measurements to the conduit described above. Moreover the stamped bricks at Niffer and Warka used in the construction of the conduits prove that both structures were the work of the same King, and it is therefore reasonable to suppose that both structures were built for the same purpose.

The stages or terraces of a ziggurat like the Bowariyeh at Warka or the Temple of Bel at Niffer, present to the open sky an aggregate surface of about half an acre for the latter and a greater area for the former.

Though the annual rainfall in lower Babylonia may be less than that of many other countries, yet it not infrequently happens that the wintry rains descend in torrents such as to temporarily submerge extensive tracts of country.

It is therefore of the greatest importance that these high ziggurats, built of perishable, sundried, bricks, easily dissolved if soaked in water, should be provided with ample and substantial drainage, equal to the greatest demands that shall ever be made upon them.

Such a system of drainage we have found at Niffer, and a not inferior system of drainage at Warka, was essential to the preservation of its crude brick ziggurat. Mr. Loftus found the complete system of drainage at Warka but failed to recognize it, and we may add that the conduit is a feature of Babylonian architecture hitherto unknown to history. It may have been the creation of Ur Gur, to whose knowledge skill and experience as a great builder this conduit is a fitting memorial---an enduring monument, of the highest utility for the preservation of the stately ziggurat.

### Lower Edifice.

The lowest and most ancient edifice underneath the eastern corner of the familiar ziggurat of Ur Gur was partially examined by tunnels, driven along the outer face of its walls.

Contrary to expectations it was found to be a comparatively small and, so far as we can discover from the existing excavations a separate building having an equal length and breadth of twenty three feet with a symmetrical and double re-entrant angle at its northern corner. It is built up solidly like a tower and its exterior surface shows no trace of a door or opening of any kind.

Its splendid walls, eleven feet high, were built of large crude bricks, each measuring one foot six-and-a-half inches in length and breadth, and varying in thickness from three and a half to four inches.

The bricks were made of tenacious clay thoroughly mixed with finely cut straw, and well kneaded. They were also of good mould and in proportions, size, and texture, closely resemble the stamped crude bricks of Naram Sin, of which they are the prototype, and which they doubtless precede by at least several centuries.

No clue to their identification has yet been found. The bricks have not been sufficiently examined to prove that none of them were stamped, and reasoning from analogy, it is not unreasonable to suppose that some of them were stamped like the crude bricks of Naram Sin, in the walls of the caravanserai.

The batter of its walls is three quarters of an inch to the foot. The design of the building is not yet evident. Nor can we suggest the era of its construction.

Given time and moderate expense of labor, the construction of the most ancient temple can be sufficiently determined to prove its main features. We do not know the origin of the staged temple and without further investigation we shall never know whether the temples of the Sargon dynasty were placed on a single elevated platform, or upon the summit of a staged tower.

For aught we know to the contrary Ur Gur may have been an usurping foreigner who introduced the ziggurat into Babylonia, though one would gladly believe that he followed the

general plan at least if he did not copy the model of the more ancient temple when he raised his imposing edifice on the foundations of his great predecessor.

#### Storage Room or Treasury Vault.

In the enclosing and fortifying walls of the Temple Area on its southeastern side, partly above and partly below the level of the court of the temple, was built a room whose construction indicates it to have been a storage room or treasury vault for the safe keeping of the treasures, vessels and archives of the temple.

The room, which had no door in its unbroken walls, is thirty six feet long, eleven and a half feet wide and its walls are eight and a half feet high. Some two and a half feet above the floor of earth a ledge one and a half feet wide, extending entirely around the room, and built up in conjunction with the walls of crude bricks, evidently served the purpose of a shelf for the storage and safe keeping of treasures, vessels and archives in due form and order.

Beneath the bottom of the walls, which are built of the bricks composing the body of the ziggurat, is a layer of earth and debris two feet deep, and below the debris are the unbroken walls of an earlier room of the same form, but slightly less in each of its dimensions, than the latter room built over, and yet not directly upon, the walls of its prototype, thirty two feet long by seven feet wide.

The ruined walls of the lower and earlier structure are three feet high and were built of the same crude bricks, of which the higher and later structure was built over them, while it was separated from them by a stratum of earth and rubbish two feet in thickness. The later structure was built upon the level of the Naram Sin pavement. The ruins of the earlier structure lie wholly below that level, and are covered with two feet of debris.

Within the walls of the lower and earlier structure were found four brickstamps of Sargon in the same level, or slightly below it, that has, in other parts of the Temple Area, produced the relics of the same King. It is probable that these had been preserved among the archives, and that when the latter were carried away, the brickstamps were left with the remnant of tablets which were found on the ledge of the later room.

Directly underneath the eastern corner of the earlier room or vault, a brickstamp of Sargon was found embedded in the debris upon which the walls were built five feet below the level of Naram Sin's pavement, and the stratum that has produced nearly all of the discovered relics of King Sargon. The finding of Sargon's brickstamp at that particular point proves two things: first, that the earlier structure was built by some one after the time of Sargon, and probably after the time of Naram Sin; second that the earlier structure was a vault built partly or wholly below ground since it was probably built after the time of Naram Sin, while its floor of earth was five feet below the pavement of Naram Sin.

If we consider the matter of constructions in connection with the facts herein stated it is evident that some King subsequent to the time of Naram Sin built the earlier vault in the body of the

fortifying wall and placed it chiefly below the level of the court of the temple. It is also clearly evident that the structure fell into a ruined condition and was rebuilt probably by Ur Gur himself when its walls, eight and a half feet in height, were wholly below the level of the temple's court.

It was wholly a vault or underground storage room in the time of Ur Gur, and was doubtless entered from above by means of a ladder stairway or other perishable passage of which no trace could be found. In the earlier and later vaults the crude bricks were of the same form, size, and general appearance and belong to the same epoch in the manufacture of bricks, though they were made by different Kings as shown by slight differences in the color and texture of the bricks which roughly measure  $9 \times 6 \times 3$  inches in their several dimensions.

Both in the walls of the caravanserai and in the structure of the temple, the bricks of this period or epoch, lie directly upon the foundations of Naram Sin and continued to be used until the time of Ur Gur. Ur Gur himself made and used the bricks of this mould. They were also used by some predecessor of Ur Gur's. No trace of these bricks before the time of Naram Sin has anywhere been found, nor have we been able to identify their use by any monarch after the time of Ur Gur.

While it is not definitely proven, it is however, reasonable to suppose that the lower or earlier structure was built soon after the time of Naram Sin, partly under ground, and partly above the level of the court at that time, and that the later structure was built by some one about the time of Ur Gur---perhaps by Ur Gur himself.

About one foot below the top of the walls of the lower room is the top of a hemi-spherical basin of pottery set in a rim of stone. No indication of its use has been noticed. We shall diligently search for other sources of information respecting the date and use of this structure, both in its earlier and later parts.

#### Drains and Ventilators.

Fig. No 1 shows the front elevation, and a longitudinal section of a construction, which appears to have been a drain of burned bricks, and resting upon it is a ventilator of light colored and porous terra cotta of the same soft, and friable texture as the unglazed sarcophagi or coffins of the so-called slipper pattern.

Both the brick drain and the terra cotta ventilator passed quite through the thick wall of its house to the street into the room contiguous to, and northeast of the room numbered 2 on the large "Plan of the Temple of Bel".

The bottom of the drain was slightly lower than the floor of the room which it drained.

The ventilator was one and three quarters feet above the floor of the first period in the occupancy of these rooms. A fire-place was made at the inner end or opening of this terra cotta tube, which at that time must have been designed to give draft to the fire within, or else its inner end was closed with mud at the time the hearthstone was placed at its inner orifice.

The absence of any trace of smoke within the tube proves it to have served for the ingress, and not for the egress of air, so far as it served any definite purpose at that time in the household economy.

A terra cotta tube, similar in all respects to the above ventilator was found to pass through the northwestern wall of room 104 at the height of nine feet above the floor of the room it ventilated.

Fig. No. 2 shows both front elevation and longitudinal section of another drain of ordinary type. It was built of burned bricks and gave drainage from a room into the street.

Reddened earth and an abundance of ashes, prove fires to have been made at one time at the opening of this drain within the room, although there was a well-made hearthstone with a fender of terra cotta in another part of the room. See Fig. *blank*

### Vertical Drains.

Fig. 128 (Mar. 1895) shows a part of a drain of large jars or pots. The mouth of each jar was placed upward, and a hole was made in the bottom of each jar, giving a continuous passage for liquids. Such drains frequently terminate in larger jars at the bottom. Not infrequently they end in a reservoir of bricks like the ruined reservoirs of bricks seen in photographs Nos. 272, 273, 274, and 275. This drain was found in mound X. and is not uncommon in this and other mounds.

Fig. 129 shows the exposed portion of a very deep drain whose bottom has not been found, though it has been followed for thirty feet from the top. Its orifice is in the closet of a Jewish house; the main portion of this drain is made of the regular drain tiles used for such purposes. Its upper part consists of three very large jars, which might mean that the builders of the Jewish house utilized an older drain, or that the upper part being soon broken, may have been repaired in this manner by the original builders of the house.

Fig. 130 is a good specimen of a vertical drain made of perforated tiles. This is doubtless much older than the Jewish period. Though it cannot be proven, yet this drain seems to antedate 1000 B.C. It may even be as old as 2000 B.C. Within the Temple Precincts there are vertical drains which antedate by many centuries the era of the Sargonid dynasty of Kings.

### Copper Knife and Nail.

Immediately below the pavement of Naram Sin were found a fragment of a copper knife and a copper nail of Sargon's era. The metal in the fragment of copper knife is sound. It is four and three eights inches long and its blade is one and five sixteenths inches in width. It was broken in ancient times and has apparently suffered little change from corrosion while buried.

The copper nail is perfect and perfectly preserved, and is well wrought. It is one and three fourths inches long. Both nail and knife were found below the level of Naram Sin's pavement. Their high antiquity is therefore beyond dispute. They belong to the era of Sargon the Great, Sargon of Agade, whose name and fame glow with ever increasing lustre, as we dig and delve



deeper and wider into the depths of those vast accumulations and overturn the successive foundations of structures whose mingled debris, testify by the greatness and solidity of their mass, to the growth, activity and decay of a great city. Unnumbered generations of men in their lives toiled to build the great city of Nippur and dying, having nothing else to give, gave their flesh and bones to crumble back to dust and increase the slowly growing deposits to which they had contributed in their lives and by their deaths.

#### Impression of Seal and Lacquered Pottery.

A fragment of black clay, bearing in relief upon its carved surface several human forms, and in greatest dimension measuring 5.7 centimeters was found at a depth of 23 feet or 7.1 meters below the so-called pavement of Naram Sin, in front of the altar and but little above the present water level. It was about 8 feet or 2.44 meters lower than the bottom of the archaic arch, and within about 7 feet of the lowest traces of civilization on the very ancient site of Niffer and hence belongs to the period of her unwritten history, and to the time of her youthful vigor in the practice of noble art, noble rendered. Its antiquity is, therefore, very great, and its value in the history of art cannot be properly estimated until we shall have finished the exploration of this venerable site, consecrated before the birth of written History to the worship of the great lord Bel.

On the same level was also found a small fragment of red lacquered pottery.

This almost tiny fragment of pottery, added to those already found, and reported, establishes the proof that lacquered pottery of great excellence was made in very early periods of civilization thousands of years before the artistic Greek attempted the same kind of work, in his rocky islands, and on the rugged coasts of Europe.

The ordinary potsherds of those lower strata, are, as a rule, of a quality superior to the potsherds found in those strata, which are subsequent to the time of Ur Gur. This fact, too, is in harmony with the low level of the lacquered vase fragments.

The excavation of the Temple Area is incontestably proving that there was a time far beyond the bounds of written history, when at least some of the useful arts were more skillfully applied than they were during those early ages of the historic period, to whose productions in art we have gradually accustomed ourselves to prefix the adjective "Archaic" in description of any rudeness of design, or roughness in shaping any object whatsoever, of whose age and history we are uncertain. I would not too severely criticize the common use of the word archaic. It is as necessary in archaeological parlance as is the word antiquity itself.

Its judicious use often covers a chapter of description.

Its wrong use is, however, misleading. It is not impossible that our modest work at Niffer is slowly, indeed imperceptably, defining the limits of its proper use more accurately. Long before the chronologist can even assign an approximate date for the foundations of this most ancient of cities, we shall have learned many a lesson in the comparative history of art, and in the

development of many useful arts, and it may be that one of the unexpected tasks devolving upon us will be to trace backward to a type and period of greater excellence and higher antiquity a gradually degenerating art. Such a lesson will, I believe, be learned from the pottery of Niffer. Our work at Niffer puts a new phase on the history and development of the arch. May not the history of pottery stand in a new and clearer light by reason of our labors also?

The pieces of an archaic vase of ordinary reddish pottery measuring 9½ inches in height found twenty-four feet below the pavement of Naram Sin, were saved and glued together in order to preserve a specimen of which hundreds have been found. Many attempts were made to obtain a sound specimen of his very ancient type, but without success. They appeared to be drinking cups and ladleing bowls. The pottery was slack burned and very brittle.

The stratum producing the case is literally filled with potsherds of small size and generally brick-red color. The lowest strata show a large proportion of black ashes and fine charcoal mingled with the earth. These strata to the very bottom of the accumulations contain potsherds in moderate quantities, but of great excellence in texture and form.

#### Inscribed Torso of Statue in Diorite.

The fragment of a statue was found in the stratum that has produced nearly all of the fragments of stone vases, which have hitherto been found within the noble Temple Enclosure. It was therefore found slightly above the level of the crude brick platform of Ur Gur, probably near to the point of its destruction by fanatical hands, doing the will of some vain-glorious despot, who unable to carry it away, destroyed it that another might not possess it; or maddened by a spirit of savage and jealous idolatry, delighted in acts of gross impiety, and sought cruel revenge for the sake of personal exaltation, or for the love of inflicting evil and suffering upon others, of finer mould, as a means of self-aggrandizement and glorification.

The body of the statue is broken nearly square off just at the joint of the elbows and below the clasped hands, which conceal behind them the ends of a long and flowing beard, well executed and scarcely injured in any way. Each wrist is encircled with a bracelet of precious stones, and about the neck is clasped a necklace of larger gems, strung on a skein of finely spun wool, glossy and bright in its wavy fibres. Such skeins are still worn by the more pretentious Arab sheikhs to crown the silken headwear and it is regarded by Arabs as a badge of distinction. Falling diagonally across the chest from the left shoulder, and apparently supporting a low hung garment, is a band of fine fabric 1 5/16 inches or 3.4 centimeters wide. Its lower edge is embroidered with fine and even stitches and a row of small stone beads. A bit of the garment is seen to pass under the right arm, and partly covers the right breast. Two folds of a lighter garment, or robe, probably a shirt, lie loosely over the left arm, fully exposing the left breast. The outer garment is sparingly embroidered, and hangs in graceful folds from its glittering fastenings. The body, arms, hands and nails are truthfully delineated; details of the body and its covering garments are well executed, and the surface is highly polished.

Just beneath the necklace, and between the shoulders on the back is an imperfect inscription. Only one line of the inscription seems to be wanting, and the first character of that line is clearly distinguishable.

#### Head of Statuette.

The head of the statuette discovered above the Ur Gur level, is of grayish white gypsum, and is broken off at the top of the neck. The head alone measures two and five eighths inches in height, including the remnant of neck left in front, it is two and seven eighths inches in extreme height. The head is well balanced. The face is pyriform. Except for a thick nose, the features are regular and pleasing. The corner of the eye is inlaid ivory, set in a slightly protruding rim of lead to mark the lids.

It seems probable that the custom of coloring the edges of the eyelid prevailed in the sculptor's time; otherwise the contrast in color between the dull lead and glistening ivory would have been too great. Both pupil and iris are wanting. The right eye is entirely missing. A curving incision made on a level and producing shadow in different lights, fairly represents the arching brow. It is possible, and indeed it seems highly probable, that some substance to imitate the hair of the brow was fixed in the bevelled slit or incision, which is admirably cut to retain such an imitation of the human brow.

The idea of such a material and literal imitation of nature is in perfect harmony with the treatment of the eye, and seems to have been a detail of the facial expression.

#### Human Skulls.

On the northwestern side of the ziggurat between the older construction of small bricks of Ur Gur's time and the later construction of large crude bricks, were found three human skulls. They were embedded in the mortar of clay mixed with straw, that filled a considerable space between these two constructions. The skulls were perhaps twelve feet below the top of the present ruin of the ziggurat as it appeared at that time, and were on the same level at nearly equal distances apart and were included within a space of about nine feet in length.

Whether the skulls represent the heads of sacrificed victims, or whether they were the heads of the toiling prisoners who had fallen victims to the angry passions of their taskmasters, there is nothing to indicate. Judging from our own laborers, who carry these large crude bricks a much shorter distance with great difficulty, it must have been a severe task to have brought these same bricks from the plain below, where they were made, a considerable distance from the top of the ziggurat, when the latter was built. The portage was probably done by prisoners of war, under the lash and it is not unlikely that many being ill, would fall from temporary exhaustion to the ground, and under such circumstances it is easy to fancy the hardened taskmasters as sometimes going too far in a fit of passion, and killing the helpless victims, they only thought to goad to

greater exertions; and occasionally, under sway of anger, to brutally murder one, who failed through weakness to respond to the lash.

One of the skulls still remains embedded in the mortar, and in due time its position may be shown in a photograph.

#### Unfinished Vase.

The unfinished stone (marble) vase of the same material, form and size as the vases of Alu Sharshid found in 1893 and published *unfinished*

The extreme height of the vase is 10 1/8 inches; its greater diameter across the top is 7 inches; across the bottom is 5 3/4 inches and its middle diameter is 5 1/8 inches.

A careful study and comparison of this uninscribed vase with the previously obtained inscribed fragments, will establish the identity of this uninscribed vase with the known work of Alu Sharshid. Out of the finally accepted conclusions are to be evolved arguments for the enlargement of our present chronological bounds and for the succession of Kingly reigns.

The vase was found about five feet below the level of the Naram Sin pavement, and was covered with black ashes and earth.

The position of the vase clearly proves its author to have preceded the reign of Sargon, whose son we know to have built the pavement. By how long an interval its author antedates the reign of the great Sargon, cannot be determined at the present time. It is certain that the two reigns were not far apart in point of time. It is possible that they were successive reigns. It seems also to be possible that they may have been separated by one or more generations of men. Unless documentary evidence is found, we must look for other indications to establish the sequence of reigns. It is my own opinion at the present moment that Sargon did not immediately succeed the author of the vase. But this opinion I would state with great caution lest any be misled by it. Before the Temple Area shall be fully explored, it is almost certain that other indications will be noticed bearing upon the sequence of these and other reigns of that epoch. In support of this assertion it should be remembered that our excavations below the great platform of Ur Gur include but a very small part of the Temple Area. Compared with the whole area the excavated portion is almost insignificant, and yet valuable results have been achieved, and we are still gathering material to elucidate the history and life of the millennium in which perhaps King Sargon was the principle figure. The inscribed fragments of vases hitherto found were all found above the platform of Ur Gur, and could not be identified with the stratum which concealed them for so many centuries. The same is for the greater part true of the Doorsockets and some of the brickstamps of Sargon above the platform of Ur Gur. Those inscribed objects were preserved from age to age for many centuries, and therefore were carried up from stratum to stratum as the mound grew in height by the slow accumulation of debris. The position in which those things were found was purely accidental, and they were not found in the Sargon level as it was at first

supposed. The true level of Sargon and of his predecessors, near and remote, is below the pavement of Naram Sin. Whatever is found in any of those lower strata is likely to have belonged to the stratum in which it was found, and may be safely used as evidence to establish the sequence of events and reigns, and to arrange in due order the scattered facts and remnants of human history in its earlier epochs.

As already expressed, I cannot doubt that Niffer is one of the oldest inhabited cities of Babylonia, and of the world, and though we have not hitherto found a very large number of ancient documents within the broad area of the Temple Enclosure, we are nevertheless, slowly and in small degrees gathering important facts upon which to begin a new volume in the history of the world--- a volume treating of an epoch little dreamed of by the last generation of scholars.

In our deepest excavations within the precinct of the Temple we have been at work around the altar, the very spot in all the Temple Area, least likely to have been the depository of records of any kind. I think we should not despair of obtaining records because the vicinity of the altar has not discovered them to us. Even here we have obtained results commensurate with the outlay of funds. The early edifice under the eastern corner of the ziggurat, the water-cocks beside it, the archaic arch, the unfinished vase of Alu Sharshid, are all from the vicinity of the very ancient altar, which antedate the reign of Sargon by centuries.

Many months of labor were expended in clearing the great court of the Temple of Ur Gur and his successors. Its chief results in transportable objects were the inscribed fragments of vases forwarded to Constantinople in the spring of 1894. This, of course led up to the greater work on the ziggurat. None of the labor on the court was wasted. The work there done is of great value, in the understanding of the work since done. It seemed to produce comparatively small results.

Instead of feeling discouraged with small results in the Temple precincts, I am almost hopeful of greater results in the earlier epochs of the unwritten history of the human race, for two or three millenniums before the time of Ur Gur. We must cease to apply the adjective "earliest" to the time of Sargon, or to any age or epoch within a thousand years of his advanced civilization.

#### Archaic Tablets.

Several archaic tablets were found no less than four feet below the level of the Naram Sin pavement, and antedate the reign of Sargon.

These tablets are rudely fashioned and appear to be inscribed with numbers only, represented by straight and curved lines in groups of two three, nine and ten.

In one instance a column of nine curved marks made by the thumb nail, is flanked on either side by a column of ten straight lines made by the use of some other instrument than the stylus.

One tablet has a single group of nine marks on one side of the tablet, and on the opposite side are two groups of two lines or marks each.

### Uninscribed Tablets.

In a layer of light gray ashes, some four inches in depth, on the northeastern side of the early edifice, and nearly on a level with the top of its walls, and underneath the pavement of Naram Sin, on which Ur Gur place the foundations of his temple, was found a fragment of an unbaked tablet. With it were also found several lumps of kneaded clay, and among them an imperfect tablet, prepared on one side only for an inscription, which owing to several flaws in its texture, it had never received. This unfinished tablet is more noticeable because of its general resemblance to a tablet discovered in an oven four feet below the level of the Naram Sin pavement, which tablet, not yet deciphered was inscribed on one side only.

Having been found beneath the Sargon level, it is certain that these fragments of clay and lime tablets long antedate the busy reign of Ur Gur to whose genius and skill as a mighty builder, the earliest monuments of Babylonia have, until recently, been assigned by general agreement.

Several fragments of lime mortar have also been found in the debris near the walls of the above-mentioned building, and at a depth of several feet below Ur Gur's platform. For what purpose it was used, is beyond our present knowledge, yet the presence of burned lime, made into mortar at such depth, proves that the art of producing lime was known in Babylonia before the time of Sargon, a surprising fact in the use of lime.

### Who Destroyed the Sacred Vessels?

If this conclusion finds acceptance, it then follows in logical order that the vases, whose fragments we have been gathering at infrequent intervals of time, were destroyed and their pieces scattered about by some one, who reigned between the time of Ur Gur and Ur Nineb, or by some conqueror who sacked the temple and carried away its archives between those reigns.

As none of the vase fragments were found immediately beneath the pavement, it is natural to suppose that the destruction was wrought by some one who lived at least one or two generations before the time of Ur Nineb; but on this point we have no trustworthy evidence to fix more closely the limits of the deplorable event.

### Ablutions.

Not far away from the archaic altar, and near the rude curb which circumscribed the sacred enclosure, but at a greater depth, was found a floor of terra cotta made in four sections, nearly four feet square, and ten and a quarter feet beneath the pavement of Naram Sin. The different sides of the flooring were of unequal dimensions. The longest or northwestern side toward the ziggurat measured 51 inches; its opposite or southeastern side was 46 inches; while its northeastern and southwestern sides were respectively 43½ and 44½ inches in measurement. It was bounded by a vertical rim two and one half inches high. The drainage from its sloping floor fell into a vertical drain of tiles 20 inches in diameter in the middle of its northwestern side. This was the place of ablutions which figure so conspicuously among the ceremonial observances of

Oriental faiths and are still practiced by the people of the land. The custom referred to, does not in any way affect nor effect the general cleanliness of the person. It is wholly a ceremonial and perfunctory rite often perfunctorily performed to make the body ceremonially clean for the effectual offering of prayer and rendering of acceptable worship. The discovery of this place for ablutions within the Temple Area proves that the present custom of preparing the body for the daily observance of religious worship as perpetuated by the people of the land, and many other Oriental peoples and religions, is of very great antiquity, and is probably as old in the unwritten history of the human race, as is the practice of idolatry itself.

In the immediate vicinity of the place for ablutions, but in different levels and belonging to widely different epochs of history, were found some fifteen large vases, probably for the storage of water, which were undoubtedly filled by women and servants in the employment of the temple service for the use of worshippers in their repeated ablutions. On the same level as the place for ablutions, was found a vase containing about two cauldrons, and two feet higher was a corrugated vase about eight feet below the pavement of Naram Sin, and about eight feet below the top of the altar (23 feet distant) which doubtless was a receptacle for water used in the temple service.

Several other vases found at different levels, varying from eight to twenty feet, below the venerable pavement of Naram Sin show that these large vases were used for several centuries before the time of the Sargon dynasty.

When the tide of pilgrimage was greatest, the use of the large vases to receive the water for ablutions was replaced by an aqueduct. Several ruined aqueducts still exist in the famous Sargon level of the court of the Temple.

The aqueduct was composed of an open water spout of terra cotta three and one half inches wide and two inches deep. It gently sloped toward the ziggurat. Its first appearance is immediately below the pavement of Naram Sin but belongs to the true Sargon level. It was doubtless introduced by the Sargon dynasty of Kings to replace the vases of earlier times which neither appear in the Sargon level nor ever afterwards reappear in the court of the temple. Whence the supply of water was obtained or how it was raised to the level of the aqueduct to the point of its ingress into the enclosure of the Temple we do not know. Perhaps we shall never know, yet it must be confessed that they have not been sufficiently traced to discover their true relations.

#### Pointed Arch.

This arch is found at low level at Mound X. It is not fully explored and its purpose is not yet apparent. Though there is no clue to its age, I cannot doubt that its antiquity is very great, perhaps antedating by two thousand years or more the beginning of the Christian era.

Whatever theory may be propounded to account for the origin, age or use of this arch it is not likely to have been the earliest specimen of its kind at Niffer. Indeed its very existence here at a low level and in a fully developed stage may safely be regarded as proof that the pointed arch

was known and used in Babylonia in much more ancient times than the date of this particular arch.

It is not unreasonable to suppose that the arch in both its pointed and rounded forms may have originated in this very region of the ancient world, and I shall follow with keen interest any possible clue that may cast any ray of light on so interesting a question.

Its foundations have not been sufficiently examined and only its external opening has been exposed to view. The portion exposed measures 1 foot 10 inches in height and 1 foot 4 inches in breadth at the bottom. I am not sure whether the measurements are made from the bottom of the arch, or at some point above its actual bottom, and I only give them because you like to know the dimensions of such objects.

The wall in which the arch is placed is built of the same crude bricks which compose the body of the ziggurat. In its centre the arch is  $23 \frac{5}{8}$  inches (60 centimeters) wide at the bottom. The arch passes through the wall of a building which has not been sufficiently examined to determine its nature. It may have been a house of the wealthier class of people or it may have been some other kind of a structure so far as we can now decide its use, yet from the appearance of a single room, which has been examined it is not unlike a house.

#### Terra Cotta Figure with Traces of Color.

One female head of terra cotta was found with clear traces of coloring, which on drying faded and scaled off from the terra cotta surface underneath it. The face was colored white, and a band of crimson, very fairly representing the width of a modern belle's ribbon, passed under the chin and upward in front of the ear holding in place a light covering for the head as a woman's bonnet is today held in place by ribbons fastened beneath the chin.

#### Inscribed Terra Cotta Vase.

An inscribed vase of yellowish brown terra cotta, two and fifteen sixteenths inches high and three and eleven sixteenths inches in greatest diameter was discovered in the loose earth that had gathered at the bottom of a mound where many valuable things have been found at Niffer  
*unfinished*

#### Lip Handled Bowl.

Among other forms of pottery was a large bowl, with an elevated and protruding lip, which was apparently intended for a handle, by which to grasp the vessel without the need of touching the hand to the contents of the same.

#### Bronze Smelting-Pot.



A fine bronze smelting-pot, quite sound except a small hole made in the bottom by the pick was found in a stratum of earth representing the beginning of our era or the century immediately preceding it. The capacity of the finely formed vessel is about one gallon. It has bronze flanges around the top, a pouring spout, ears for a bail and three legs. Its diameter overall is 8 1/4" width of flange 7/8" depth of pot inside 4", length of legs 1 3/4", thickness of handle ring 1/2", opening of spout 1".

In Baghdad a larger bronze vessel of the same form, weighing about eighty pounds and said to have been brought from Tello was offered for sale. Its capacity was perhaps five gallons.

#### Stele of Ur-en-lil.

The stele of Ur-en-lil was found in the debris near the bottom of a hill where many valuable things have hitherto been found. It measures 7 1/2 × 8 inches in length and breadth and is 1 inch in average thickness. Near its centre it is pierced by a circular hole 1 1/4 inches in diameter. On its flat face are traced by single and sized lines 6 human and 2 animal forms. There are three short inscriptions rudely inscribed in two tiers. The stele is an impure limestone of bluish gray color.

#### Glass Bottles.

Two glass bottles were found below a construction of crude brick measuring 11 1/4 × 11 1/4 × 5 inches; one bottle is square or four sided, with four pointed feet to support it. It is 6.5 centimeters in extreme height, including the feet, and 2.3 centimeters wide on each side.

The other bottle is square in form, but plain in design, and displays no special beauty.

If we can obtain any certain clue to the date of those crude bricks, we shall have fixed a date or epoch, beyond which the glass bottles must date their origin. No such clue has yet been found, and perhaps never will it be satisfactorily determined. Yet it will ever be our duty to search diligently for traces of every kind.

#### Inscribed Egg-Shell.

On the very crest of the Hill X. which has produced by far the greatest volume of cuneiform tablets, an egg-shell inscribed with ink in Hebrew characters was found in the room of a house. The floor of the room in which the fragment was found, is scarcely four and a half feet below the crest of the hill and the fragment appeared at a depth of only one half foot below the surface of earth which filled the room.

#### The Shatt-en-Nil.

By means of a trench 87 feet long with an average depth of 21 feet, we at length found the ancient bed and the northeastern or left bank of the Shatt-en-Nil, at the narrowest point of the main canal opposite to the hill marked IV on the "General map of Niffer (1889).

At the depth of twenty and one half feet below the surface of the ground in the middle of the ancient stream-bed, and at a point where the accumulations above it were least, the bed of the canal was found. At this point the eastern embankment of the canal was a sloping bank of reddish clay, and the most careful search revealed no trace of wall, or even a fallen brick or stone on the bank, or within the bed of the stream, to reveal the existence of a quay, from which it is natural to conclude that there was no well-built quay at this point of the canal.

In the debris accumulated above the bed of the stream, and 17 feet below the surface, were found three fragments of an ancient terra cotta fountain of unique design, with interesting figures in high relief. One fragment 7 by 10 inches, represents a priest clad in richly embroidered robes and standing on the backs or shoulders of two winged camels, or possibly winged horses. The curvature of the fragments show the fountain to have been more than two feet in diameter, and there must have issued from it at least 16 jets of water. These fragments are interesting from two points of view. First, proving the existence of fountains at Niffer. Second, as an example of somewhat archaic art in which the perspective is bad; the species of the animals not easily distinguished, while the decorations and robes of the headless priest reveal the artist in a work of true merit.

It is certain that the main channel of the Shatt-en-Nil did not pass between the Mounds I (*sic*) & V, but that a branch of the main canal flowed through the valley between these hills, while the main channel continued its direct course toward the southeast between the mounds V & X. On the very brink of the branch canal at the extremity of Mound V is a little hemispherical hillock which may be safely identified as the custom house of ancient Nippur while the space between the hillock and the entrance to the great temple from the southeast was an artificial harbor, where the ships lay at anchor to lade and unlade their mixed cargoes of merchandise, where too the pious groups of pilgrims to and from Bel's most sacred shrine embarked on their tardy journeys. From the point in the harbor where the tolls and customs appear to have been collected, began the principle business street which ended in the great caravanserai where the pilgrims coming overland found shelter with their donkeys, their mules, their horses, and their camels. On the street several shops for general merchandise were found, and one barber's shop in the centre of the market near the quay was examined. Several fine grinding stones were found in it. Its position in the best quarter of the market corresponds to the position of barber shops in the Orient today.

#### Mammouth Brick.

An inscribed, deep red, kilnburned brick, of excellent form and texture, measuring twenty inches square, and three inches in thickness, was found out of position, having been appropriated for a table or support of some kind. This brick appears to have been moulded by Naram Sin in the mould used for his crude bricks. The Louvre boasts the possession of a brick a trifle more

than seventeen and one half inches square. Ours is nearly two and one half inch greater in each dimension, and is the largest kiln-burned brick that has yet been discovered at Niffer.

### Ziaret.

About midway between the temple of Bel and the Shatt-en-Nil, and slightly to the southward of west from the former, has been excavated a building of doubtful origin, built of burned bricks and lime mortar, in the style of the ziarets, or holy tombs, which abound in many countries of the East and South, notably in Turkey, Persia, and India, and in the countries of northern Africa. This building measures thirty-two feet and three inches in length and breadth, and stands parallel to the great temple of Bel. Like the famous temple its orientation varies twelve degrees from a northwest and southeast line. In each side is an opening seven feet and ten inches wide.

The building was covered with a dome of bricks laid in lime mortar, and would appear to have been conspicuous for its symmetry and proportions. Its walls today stand seven feet and eight inches high, and are six feet and nine inches in thickness, being well built and sufficiently strong to resist the lateral thrust of the dome. The walls are built of soft yellow bricks measuring twelve and one half inches square with a thickness varying from a minimum of two and three quarters inches to a maximum of three inches. In color, texture and mould, the quality of these bricks appears to be identical with the soft porous bricks built into the facing of the great cruciform projections of the temple of Bel in its last great reconstruction by some unknown builder probably in late Babylonian times.

In the southeastern opening is an altar. The altar consists of three stages, each stage, except the highest, being composed of two layers of brick, each stage measuring six inches in height. The altar stands upon a raised platform 1 foot high, and its uppermost stage has evidently lost a course of bricks making the original height of the altar two feet, while across its top it measures three feet. The bricks composing the altar were laid in lime mortar, and its sides were smoothly plastered with mortar of the same kind.

Upon and around the altar to a considerable distance from it were wood ashes six inches in depth, a degree of accumulation that could not have been accounted for by an occasional fire.

Within the building and exactly in front of the altar is a raised block of crude bricks. The sides of this block were plastered in the same manner as the sides of the altar itself. It was distant from the altar about one foot. Possibly the officiating priest may have stood upon it while offering the sacrifices. There is a difference of one foot in the level of the brick pavement shown by the line X. Y. the side toward the altar being the higher.

There is no reason apparent to us why the pavement should have been made in different levels, unless it was possibly to elevate the altar and the priest above the lower part of the room.

Judging merely from the plan of the building, one might suppose it to have been an Arab tomb or ziaret.

At one stage in the progress of its excavation, the same suggestion came to us in the field, but as the work proceeded this hypothesis appeared no longer tenable, and we feel confident that this building is much older than the Mohammedan era, though by whom it was built we have no definite clue.

The bricks used in its construction were new bricks, at least they had not been previously used in other buildings, and as stated above, they are identical in dimensions, color and texture, with the soft yellow bricks used in the upper courses of the skin or facing wall, belonging to the last reconstruction of the temple in the cruciform style, which would at least justify the hypothesis that the newly discovered building belongs to the same era as the reconstruction of the temple itself. Besides, the orientation of the two buildings is exactly the same. The altar proves the building to have been older than the Mohammedan era. There are no inscriptions to determine its origin or purpose. We can only guess at the former and reason about the latter.

Possibly the situation of the altar in the opening towards the sun at its zenith may be significant of its use. Might it not have been an altar and temple, or more properly a shrine of the Fireworshippers? The domed building might naturally have been adopted from Persia, and that domes were used in ancient times is clearly shown by a bas-relief on the monuments at Nineveh. From whatsoever country this type of building originally came, it is certain that the Arab tomb and zialet are its lineal descendants and by no means a creation of the Saracens.

- A. is a little altar of massive limestone.
- B. is a sketch of the altar in the building.

The altar A. rudely made, and somewhat irregular in form, has a circular depression on its top, thus creating a raised rim around its edge.

A beautiful fashioned smelting-pot of bronze with a long slender spout and of about one gallon capacity was found at the entrance of the above building. It is quite sound except a small hole made in the bottom by the pick. In Baghdad a larger bronze vessel of the same form, weighing some 80 pounds, and said to have been pilfered from Tello, was offered me for purchase at the price of 5 L.T. (\$22.)

### Departure from Niffer.

On Monday the 17th. of Feb. 1895 (*sic, 1896*), being the third of Ramazan, 1314, of the Mohammedan era, excavations were regularly conducted until two o'clock in the afternoon. At that hour, the necessary preparations for our departure having been quietly completed, the entire force of workmen was suddenly withdrawn from the excavations and employed until nightfall in transporting coffins to the point of embarkation by boat to Hillah. Under a foreman the men were organized into gangs of twelve, to transport the coffins, from the castle to the place of embarkation nearly one mile distant. In all there were thirty coffins, large, heavy and fragile.

The distance was long. The burdens were heavy. The men were fasting. They had wrought since the early morning. Their courage was still good, and singing, and hurrying feet, they set

off with their uncanny freight. After the first two trips their sepulchral burdens seemed to grow heavier, their heads giddy, and their hearts faint, yet they continued their laborious toil until the sun had nearly sunk to the western horizon.

Each gang was provided with a special bier constructed for the purpose. Upon the rude bier the vacated coffin was firmly bound with ropes and the procession of several biers moved with the same hurrying tread that all such processions take in that part of the ancient world. One half hour before the setting of the sun, the fainting men ceased their labors for the day and ten minutes after the sun had disappeared below the horizon, weary and faint they had broke their fast.

Early Tuesday morning, the boats, three in number, arrived and were moored at the place of embarkation. At sunrise Tuesday morning, the work of transporting the coffins was resumed and finished about midday. The coffins were followed by other antiquities in small sealed cases and last of all the implements and household goods of the expedition were removed to the boats. The windows and door of the castle were properly sealed, and the premises and mounds formally committed to a guard consisting of three of the most influential and faithful of our employees among the Arabs themselves. At dark the antiquities were safely stowed in the boats together with the little company of Hillah people with all their household goods and belongings.

Even the most covetous of the Arabs will find it to his selfish interest to protect, rather than to destroy our house. Whether he anticipates honest gains, or plots and schemes for plunder and evil riches he will do nothing to induce us to abandon Niffer. He will rather do everything to invite us back, if only to do us the greater evil and acquire for himself the greater riches. We may, therefore, rest in the conviction, that the Arabs have every natural and selfish motive to wish us again among them. Friend and foe alike will welcome us back again; our friends to gain the reward of honest labor, our foes to seek the fruits of their covetous desires or to gratify some spirit of evil.

At nightfall all the antiquities, together with the expedition proper, were properly stowed in the boats. The members of the expedition, the Turkish commissioner, the soldiers and camp servants and fourteen sailors occupied the boats. On the bank beside the three boats was posted the Arab guard. Near them our Hillah workmen with their families and household goods, consisting of sixty three souls, bivouacked for the night.

Early Wednesday morning the entire force of our Arab workmen came, according to appointment, to tow the boats out into the main stream where they would float, for they were all aground in the shallow water at the borders of the marsh. The Hillah people embarked with their families and household goods. The boats were successfully towed into the deep stream and anchored beside a low mound, which was now an island in the great marsh. Here the boats were moored and the workmen paid three day's wages including that day, and about seventy day's wages were distributed in rewards to the most deserving of them. Among the entire throng there was not a dissatisfied man, nor one who withheld expressions of gratitude and good wishes, that we might have a propitious journey, a happy visit, and that we might soon return to them in good health and spirits for many year's residence among them. Whatever trouble the sheikhs, through

greed of gold, may give us, the people who have been employed by us, are our friends. They do much to set the current of public opinion in our favor. The very attempt to hold each employee to a stern and strict discharge of every duty, great and small, and to treat all with equal justice and fairness and to give sympathy to those in trouble, has won their respect and tenderness, and could their religious antipathy be put away from them, I am sure that they would give us their loyal friendship and affections. The feeling of these people toward us has acted as a great restraint against the faithless sheikhs, who with all their patriarchal power are nevertheless susceptible to the public opinion of the Arab multitudes, and the multitudes are kindly disposed toward us as shown in many ways.

After paying the workmen, the little fleet of three sailboats was headed up the stream towards the "Great river Euphrates". The wind was dead ahead and the boats were punted slowly along against wind and current for full three hours, through the marshes. About noon we issued from the wide-spreading marshes into a winding stream confined between low banks. From this point the boats were towed by man power to Hillah in five wearisome days against head winds and a stormy current. Without mishap of any kind the party arrived in Hillah on the afternoon of Sunday, the 23rd. of Feb. 1896, the ninth day of Ramazan. We were thankful to be away from the intrigues and evils that threatened us at Niffer. In Hillah we breathed more freely, and rested from the cares that had brought advancing age too rapidly through three long years of wearing toil and strange experience among the most faithless and treacherous of all the most degenerate tribes of Arabs of all the roving robber races of semi-civilized and savage men.

On Monday, the day after our arrival, all the boards and nails in the markets of Hillah were secured, and several men were employed in making boxes for the coffins and other antiquities. It being Ramazan, the workmen fasted by day and attended coffee drinking and smoking parties by night, but in due process of time fifty-six large boxes were made and filled with our jealously guarded treasures for transporting from Hillah to Busreh by sailboat. Thence they were to be transported by ocean steamship via the Persian Gulf and the Suez Canal to Constantinople.

Owing to extensive inundations from both the Tigris and the Euphrates, both of which noble streams overflowed their banks, the usual route from Hillah to Baghdad was closed to caravan traffic, and to the ordinary modes of travel, which caused us to make a detour of some 24 miles in order to reach Baghdad.

On Thursday we left the all glorious city of Baghdad going across Mesopotamia to the battle field of Cunaxa on the Euphrates. Crossing the river at that point we followed the Euphrates valley to Deir in fifteen days. Thence we turned across the Syrian desert via Palmyra to Damascus and Beirut, passing over the Lebanon range just north of Mt. Hermon by rail. Some ten days later our hearts were made to rejoice at the sight of the beautiful city of Constantinople.

App. A.

Dec. 28th.1895.

Walls under the Ziggurat.

By a series of tunnels under the ziggurat of Ur Gur I think the question of earlier structures may be satisfactorily determined without removing the enormous mass of the ziggurat itself, but the work must be judiciously done, carefully lowered (*sic, lowered*) at every step.

Those walls are now wet with the moisture of ages, and it is with the utmost difficulty that we can distinguish a wall of crude bricks from the compact clay soil on either side of it, until the wall is destroyed and dries (*sic*).

After a season or two of draining and drying this last can be taken up to better advantage, and the work can be done with greater assurance of success without blundering.

The work will, I think, require a network of tunnels and they must be so planned that the mighty mass above them will not fall, and yet all important clues must be followed to their end whithersoever they lead.

It is proposed not to attempt this task at the present time, but to leave it for a future term of exploration with a larger expedition, better able to give the minute attention, which the importance of the task demands.

In the court of the temple some walls have been noticed at very low depths, but those are not fully understood. They are very soft, and it is difficult to trace them, but we shall ultimately interpret their meaning when a larger area shall have been explored to the lowest depths.

App. B.

August 18th. 1894.

#### Plan and Elevation of the Northwest Façade of Ziggurat.

The northwestern side of the ziggurat is in height the most imposing of all the four sides, each of which differs from all the others in important features, as you will the more clearly see when our work on the temple shall have been completed.

Sheet No. 26 is a perspective sketch, from the northern corner, of the northwestern façade of the lower part of the ziggurat.

The northern corner is slightly restored where you cut it away. The western corner shows in the distance.

On the border of the Sheets 22 and 26 is a scale of divisions and a system of lettering to indicate the different epochs in the successive repairs of this oft rebuilt ziggurat.

The face of Ur Gur's ziggurat is six feet inside the facing wall, which shows in the sketch, and is therefore invisible.

Section A. is a casing wall, built by one of the Cassaeon Kings, probably Kadarman Bel, around three sides of Ur Gur's ziggurat, and, at one time, served as a kind of basement--- terrace to the great ziggurat itself.

Section B. represents five courses of brick apparently added by Meli Siha to raise the foundation for his paneled wall C.

Section D. shows three courses of crude or sun-dried bricks belonging to the great restoration, when the cruciform additions greatly enlarged the borders of the temple

Section E. shows a wall of the last restoration of the temple so far as we can trace it.

No evidence has yet been found to show by whom this wall was built, and we are therefore only able to guess the names of the last two rebuilders of the most celebrated temple of Bel.

Section F. what may have been the second stage of the ziggurat when the temple was last repaired on its cruciform foundations. At this time the ground level was probably raised to section D. so that the wall E. was the foundation of the temple as the rebuilt.

We have been unable to trace Ur Nineb's hand in the body of the ziggurat, though his bricks have been found in pavements vitally related to the ziggurat and its immediate surroundings.

Sheet 23 showing the southwestern half of the ground plan and elevation of the northwest façade, has a recess in which are three pedestal constructions, to whose use there is no clue remaining, though imagination might easily persuade one that they were the pedestals of as many idols or statues, which may have stood guard over the weary pilgrims, as imagination pictures them sleeping on the enclosed plain toward the northwest; for I cannot doubt but that this great open space was then enclosed with walls or lined with shops, and offered the necessary protection to the pilgrims, and their caravans of camels, horses and asses.

App. C.

Sept. 1st. 1894.

#### Stages and Terraces of the Ziggurat.

At the distance of thirteen and one half feet from the face or front of the conduit there has been found the sloping face of the second stage.

The terrace on the southwestern side of the ziggurat is therefore thirteen and one half feet wide, and from this terrace rises the second stage with apparently the same batter or slope as the face of the stage below it, which is one in four, or three inches in one foot.

The batter of the second stage will not be definitely reported until a greater height of its face can be exposed, and it can be more accurately determined than in a low tunnel.

The surfaces of the ziggurat, to preserve them from rapid decay, were entirely covered with a very tenacious plaster of clay mixed with cut straw.

In places this plaster is still perfect, and in places, too, there is distinctly visible several coatings, plainly showing, that, from time to time, and from age to age, the faces of the ziggurat were re-plastered, and as long as the surfaces were protected with plaster, the constructions, though built of friable material, suffered no harm from rain or wind, and so long as the building was kept well plastered it was practically as durable as burned bricks, which, owing to the



scarcity of fuel to bake them, must always have been an expensive building material in lower Babylonia.

In line with the conduit, built into the first stage, the face of the second stage in its centre was considerably ruined by flowing water, probably at the end of the period preceeding the great cruciform restauration and enlargement of the ziggurat.

Southeast of the centre, the entire face of the second stage is worn away. It is, however, still perfect northwest of its centre, and shows an offset in line with the conduit below it, which suggests a water course of some sort; but less imposing and substantial by far than the great conduit below it.

Having at length found the second stage, of the older ziggurat, we shall now make a careful and diligent search for the second terrace and then for a possible third stage.

App. D.

Feb. 9th. 1895.

#### Construction of the Ziggurat.

This picture gives a front view of the ziggurat. It was taken from an opening in the great enclosing wall of the Temple Area, in front of, or southeast of the ziggurat itself.

In the middle of the picture is the causeway, which may have been an approach to the higher stages of the ziggurat. It is composed of two parallel walls built of the burned bricks of Ur Gur, many of which are stamped with the well known eight line inscription. The space between the two walls is filled with a regularly laid and solid mass of crude bricks, whose average dimensions are 9 by 6 by 3, inches. These bricks are of the same mould, and in color and texture are identical with the crude bricks composing the greater part of the huge mass of the ziggurat built by the mighty builder Ur Gur.

The stepped appearance of the two walls of the causeway is the result of cutting down the walls to make a level foundation for the façade or crust of the latest cruciform construction. As this construction was built up solid, the outer part or crust cannot be spoken of as a wall. It was under this crust, corresponding to the wall of a building, that the parallel walls of the causeway were cut down to provide against the unequal settling of the ponderous mass above it.

The tunnel under the entire length of the causeway proves the structure, as it now stands, to be homogeneous, and therefore is the work of a single builder, and moreover was built by the great builder of the ziggurat, which is now freshly exposed to view.

The original faces of the second and third stages of the ziggurat, are respectively shown at d,d, and e,e. b, and c, are central projections of the same stage.

No such projections are to be found on any other side of the ziggurat. The design of these projections over the causeway is not evident, yet that the officiating priest may at times have harangued the people in the great court below him from that height, or have performed other

functions of his office there, while, for aught we know to the contrary, there may have stood at the far end of the causeway a sacred shrine or altar.

I think we must learn more of the methods of the worship of early Babylonian times before the design of these projections can be intelligently discussed, and before the purpose of the causeway can be fully understood. Whatever the purpose of this earliest causeway may have been, it seems to have suggested to later generations the form that was adopted in the cruciform construction. At a higher level, and belonging to a later period than the causeway, were built from the middle of its four sides of the ziggurat at right angles to its faces, four arms twenty feet wide and probably upwards of sixty feet in length.

These arms were built of crude bricks measuring  $14 \times 14 \times 6$  inches.

The cruciform construction of later times was a broadening of these arms on essentially the same foundations, thus making an immense elevated platform. It may readily be supposed that a smaller ziggurat of several stages rose from the centre of this great cruciform structure as a platform, and at the end of each of these lower arms stood a shrine or an altar. This accounts for the large and high cone of crude bricks still rising far above the top of the cruciform construction, and account for the arms themselves.

Whatever value one may assign to these suggestions it is clear that the earlier causeway suggested the intermediate projections on the four sides of the ziggurat, and an enlargement of these produced the great cruciform construction, with which you are familiar, and which is now largely removed as these accompanying photographs, and other photographs to follow them, will clearly prove to you. But I must continue the explanation of the photographs in due order.

#### App. E.

##### Different Constructions of the Ziggurat.

Ur Gur's ziggurat was built of crude bricks  $9 \times 6 \times 3$  inches and faced on the southeast side with burned bricks.

Some successor of Ur Gur's made an addition to the top, at least of Ur Gur's structure adopting the standard size of Ur Gur's bricks  $9 \times 6 \times 3$  inches. These bricks are easily distinguished by their yellowish color from the old gray bricks of Ur Gur whose mould was adopted for them. In due time the ziggurat was rebuilt with crude bricks measuring about  $11\frac{1}{2} \times 11\frac{1}{2} \times 5\frac{1}{2}$  inches, and at an unknown later period by crude bricks measuring  $14 \times 14 \times 7$  inches. So far as I have been able to trace the various constructions, this was the fourth construction of crude bricks of the ziggurat. After this the great cruciform structure was super-imposed upon the ruined building on a larger scale. This is the fifth and last traceable rebuilding of the crude brick ziggurat. It is built of  $13 \times 13 \times 9$  inch crude bricks.

At the time of its reconstruction the bases of the ziggurat were broadened on every side, and it has been referred to as "The great reconstruction of the temple in the cruciform style." This

ziggurat is supposed to have belonged to the second Babylonian Empire; but no clue to its builder's name has anywhere been found.

It is therefore difficult to designate it otherwise than has been done. It was between the bricks of this later ziggurat that the fragment of lapis lazuli disk bearing an inscription of Nazi-Maruttash was found.

Dec. 21st. 1895.

#### Pavement to Protect Foundations of Ziggurat.

A section of brick pavement built against the base of the brick faced ziggurat of Ur Gur is seen. On this pavement, which gently slopes away from the ziggurat, was covered with a thick coating of water proof bitumen to protect the foundations of the ziggurat, as related in certain letters written in the early months of the year 1893.

June 30 1894.

As you will readily understand from the headings, Sheets No. 1 and No. 2 show the ground plan and elevation of the northeastern façade of the ziggurat.

The niche C. is a closed door.

D. is a little gate.

E. is a passage--- possibly a drain.

At the point indicated in the ground plan a tunnel has been driven under the facing wall of the ziggurat into the small crude brick (libben) composing the core of the ziggurat. This facing wall, which on this side of the ziggurat, is not a wall of Ur Gur is only three feet in thickness, and contains several bricks inscribed on the outer edge.

After passing the outer or facing wall, the tunnel cut through three feet (in thickness) of crude bricks, and came to a faced wall of Ur Gur some twelve feet wide and eight courses high.

The meaning of these walls we do not yet know. The matter needs further examination.

F. represents a section of a well which proved to have been an ancient well for water and was cut through a wall--- which we are confident was built by Meli Siha, whose inscription is stamped on the edge of several bricks in the face of the wall. Who built the well or why it was placed at that point are beyond our present knowledge.

Sheet No. 3 makes a cross section of the northeastern wall through the middle of the tunnel mentioned above, and shows the relation of the Ur Gur wall to the facing wall. It is noteworthy

that the two lowest courses of the Ur Gur wall continue under the crude brick, and are laid on the same level and continuous with the two lowest courses of the facing wall.

The section also shows the sloping pavement of bitumen, evidently made to protect the foundations of the wall from falling rain. The bitumen pavement was narrower on this side than on the southeastern side of the ziggurat; but unlike that, this pavement emptied its water into a well-made gutter of bricks and bitumen. The pavement and wall beyond the gutter have only been explored by a tunnel, in which a small fragment of a stone vase showing the eight rayed star which precedes the name of a King or Deity was found.

In my judgement a larger portion of this pavement should be cleared away; for it is near to the eastern corner of the ziggurat, within the walls of which there may have been a secondary ascent to the second stage of the ziggurat.

Sheet 4 shows the plan, section and elevation of the niche C. which originally sustained some relation to the structure around the well that is not yet made evident.

Sheet No. 5 shows in perspective the walls shown in the elevation on Sheets Nos. 1 and 2, and it also shows the bitumen pavement and open gutter, and indicates the curves in the buttresses of the Meli-Siha wall, and the longitudinal curvature of the lowest and oldest wall in the façade.

Sheets Nos. 6 and 7 are sketches of the great excavation showing the southeastern side of the ziggurat, and projecting from its centre at right angles to it the parallel walls of Ur Gur.

As hitherto stated, the space between these parallel walls was filled with crude bricks or libben, and a tunnel underneath shows its homogenous structure. The highest part of this structure is still complete, excepting a parapet or balustrade on each side, which has disappeared. This was unquestionably the chief approach to the lowest stage of the ziggurat, and may possibly have extended from the face of the ziggurat to the great wall of the temple enclosure; for the fragment of Ur Gur's wall found by Dr. Peters in the great trench near to the great wall of the Temple Enclosure, was a ruined section of the northeastern one of these two parallel walls. They are, properly speaking, the facing walls of an elevated passage way, and as they rise, slope toward each other.

It is worthy of notice in this connection that the door socket of Ur Gur, discovered September 20th., was found in a mass of fallen bricks, both crude and burned, near the juncture of the above-mentioned passage way, and the body of the ziggurat.

July 7. 1894

Sheet No. 10 shows the combined plan of the rooms previously excavated to the southeast of the ziggurat, and the rooms contiguous to them. These rooms have proven more than usually interesting in architectural details, and the more interesting because some of them represent phases of domestic life and architecture among the Babylonians of the early days of the later (Babylonian) Empire.

Sheet No. 11 gives a sketch in perspective of the street shown in the accompanying plan. It looks toward the Southwest, and shows its continuation along the face of the southeastern buttress of the ziggurat, and under the steps on the opposite side of the great trench.

In the middle of the unpaved street is a well-made gutter of burned bricks.

The masonry of combined crude and burned bricks in the left-hand middle distance shows a stairway descending from the filled up street (of what seems to be a well defined period in the occupancy of these houses, and the continued use of the street) to the lower room of a house, that was continually occupied and kept free from accumulating earth long after the street and the neighboring houses had become filled to a higher level with earth and debris; even after the doors of other houses had been raised to enter the street over a low threshold, sometimes of burned, often of crude bricks.

As they now stand free from the accumulated debris that has covered and preserved them for many centuries, the walls of these houses clearly show three distinct periods in their occupancy.

After the first occupation, during which time the street and many of the houses were filling with earth, the walls of crude (libben) bricks were at least twice raised to a higher altitude and twice were the doors carried upward to a corresponding height. The house in the left of the accompanying sketch (Sheet No. 11) shows three doors, marking the three clearly defined periods in the history of these houses.

The lower door with a segmental arch belongs to the first period; the second door was closed by a mass of crude brick, which projected beyond the face of the walls, and the opening above this projection is the ruined door of the third and last discernable period.

Sheet No. 11 also shows toward the right hand sketches of two fire-places, found respectively in rooms No. *blank* and No. 117.

Sheet No. 12 gives a cross section and ground plan of the street at the point of the centre door. It also shows cross section and elevation of the doors of the first and second periods belonging to the above house, and shown in the sketch, and in the section, and plan of the street given on the same sheet.

Sheet No. 13 is a sketch of the domestic pottery taken from this series of rooms, chiefly from rooms No. 117 and No. 121. The large vase in the centre of the group was perforated, probably to allow the escape of water. It was sunk below the floor of earth in the northern corner of the room numbered 121 on the accompanying plan (Sheet No. 10).

Around the jar's mouth was a bit of bitumen cement, apparently designed to convey water into the jar, which would seem to have served as a drain, although a more unsanitary method of plumbing could scarcely be devised. Drainage was generally effected by a sluice under the threshold of the door into the street or by a small drain through the wall of the house also into the street, the sloping floors facilitating the flow of water toward the drain.

Sheet No. 14 shows the excavations on the northwestern end of Hill VII, where the results have so far been meagre though by no means fruitless.

Some fifteen feet southeast of the eastern corner of the ziggurat, and about twenty five feet beneath the surface was found one of Meli Siha's inscribed bricks with a glazed edge. It was found in the same stratum, and at about the same distance from the walls of the ziggurat, as the fragments of green glazed bricks heretofore mentioned. Like them, this brick was also embedded in a fallen mass of crude and burned bricks firmly cemented together by an intermixture of clay and soil. This mass of debris extends underneath rooms 118 and 121, and will, in due time, be further examined for any possible clue pointing to its use in some overthrown structure.

In the corresponding strata, and at the same distance from the ziggurat on its northwestern side, is a confused mass of the same crude and burned bricks, of equal volume, and in all respects similar to the mass described above. Here, too, have been found among many burned bricks of one mould, several stamped bricks of Meli Siha, and a fragment of green glazed brick.

After several months of study and comparison of bricks, I do not hesitate to identify the uninscribed bricks in these fallen masses, both to the southeast and to the northwest of the ziggurat, as the bricks of Meli Siha since they are of the same mould, texture, color and hardness, as are the stamped bricks of the same King; nor can I longer resist the conclusion, which was at first only a theory, that the temple as it was rebuilt upon the ancient foundations, by the versatile and energetic Meli Siha was stripped for its facing of brick by some vain glorious destroyer of the later Babylonian Empire, who in rebuilding, considerably enlarged its sacred precincts.

I am confident that when, in the fulness of time, our work within, upon and around the ziggurat, shall have been completed, the time and labor spent in deciphering the problems and details of this oft rebuilt and at least once overthrown temple, will be productive of rich results.

I Berlin W. Kleistr. 8<sup>I</sup>

	<u>36</u>	617 <i>ill</i>
1 =	no 36 (191 tabl. fr.)	
2 =	no 131 (42 frg. tabl)	
3 =	no 30 (104 tabl. fragm)	
4 =	no 34 (115 fr tabl)	
5 =	no 33 (84 tab fr)	
6 =	no 35 (81 tabl fr)	
7 =	no 31 (87 tabl fr)	
8 =	no 55 (66 fr. tabl., 1 jar <i>ill ill.</i> )	
9 =	no 55	
10 =	no 72	M.....
11 =	no 76 (227)	V.....
12 =	no 74 (128)	Dab.....
13 =	<i>blank</i>	McCalla
		Ha.....tz

Retenues tablettes

1 = 36 — = c. 50 } ungebrannt  
 3 = 30 — = c. 25 } selbige Sorte  
           c 2500  
 4 = ———

13 = no 53 (40 fr + 106 tabl + 2 ill)  
 14 = no 77 (62 fr + 172 sound)  
 15 = no 79 (223 brot + 84 fr tabl)

Zu haben

7-8 (Deckel)  
 9.+10 (ill schon voll, aber fast ausschliesslich  
           Cassitensehund  
 11+12 = sicher  
 14 = sicher viele gute Cassiten + Könige von Ur  
 13 = no 53 (146) sicher (etliche grosse)  
 15 = no 79 (307) viele Cassiten schlecht  
           präserviert aber zu nehmen ill ill  
 16 = no 29 sicher nehmen (grosse Tafel  
 ill { 17 = no 57 (etliche gute ill)  
       18 = 78 (47 tabl + 287 frg) nehmen

19 = 75 (84 frgt tablets) }  
 20 = 54 } alle 3 nehmen  
 21 = 29 (no. 32) }  
 40 = 25 = 40 (123 fr)  
 44  
 41

26-28 (nicht sehr wichtig)  
 aber nehmen

Nicht

9-10 = 55 + 72  
 19 = 19+20 (ein Teil) sehr gute  
           2 Dynastie Ur  
           19: schlechte  
 20 sicher nehmen  
 20+21 sicher (Teile von 20 darin)  
 19 \* }  
 20+21 } ill  
           Alle nehmen  
 22 = 56 }  
 22+23+24+25 (hat ill 22-25)

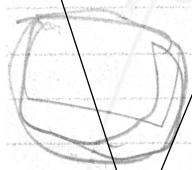


26 (kein Haynes N <sup>o</sup> da)	39 = Haynes no. 68 (107 frg tbls)
27 = no 42 (104 fr)	40 = " no 70 (128 frg)
28 = no 41	41 = " " 71 (105 fr)
29 = 44	42 = " " 116 (151 fr)
30 = no 38 (109)	43 = " " 114 (140 fr)
31 = Haynes no 12 (24 sound + 5 frg)	44 = " " 115 (224 fr.)
32 = " " 64 (161 fragmt)	45 = " no ? (c. 150 frag)
33 = " " 98 (Terracotten)	46 = " no 92 ( <i>blank</i> pilfered & recaptured)
34 = " " 69 (135 frgm tablets)	47 = " no 94 179 frmt tablets
35 = " " 96 ( <i>ill</i> of bowls, bronzes gold, seal cylid)	48 = " " 90 (126 fr)
36 = " " 66 (130 frgmt. Tablets)	49 = " " 91 (110 fr + 6 <i>ill</i> )
37 = " " 65 (142 frg)	50 = " " 95 (120 frag) <u>temple hill</u>
38 = " " 67 (111 frgt)	51 = " " 62 (133 fr)
	52 = " " 84 (198 fr v Templ)
	53 = " " 93 (119 fr = 2 parcels = <div style="margin-left: 150px;"> <span style="font-size: 2em;">}</span> 19 cases  <span style="font-size: 2em;">}</span> = 3 <i>ill</i> </div>
	54 = " "
	55 = " "
	56 = " "
	57 = " "
	58 = " " 122 (73 frgt)
	59 = " " 48 (97 fr)
	60 = " " 57 (192 fr. tablets)



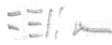
p. 8-9

	Kisten wie heute numeriert u. was sie enthalten	
<u>sicher nehmen</u>		no 2
<u>31 + 32</u>	= alles was täglich war v Tempel ist in dieser Kiste, einige grössere Fragmente andere Kassitenschund	39+40 (ja, etliche Frgmts von Briefen)
<u>muss haben</u>		41+42 ( <u>manche</u> Briefe darunter) no <u>2</u> od <u>1</u> .
33 + 35	Terracotten (nehmen) Perl..., Bronze, Eisen, etc.	43+44 = absoluter Kassitenschund <u>nichts, gar nichts</u>
34 + 36 (Tablette)	Kassitenschund mit Ausnahme einiger kleiner Fragmente von Briefen (2 <sup>te</sup> Sorte)	45 nichts grosser Cassitenschund etliche Frgmts v Briefen (III)
37 + 38	Kassitenschund, etliche Fragmente v Briefen	46+47 <u>sicher</u> (v. Tempel alte Frgmts von no 47 kleine Frgmt v. Tempel
	<u>muss haben</u> enthält Frgmt <i>ill.</i> kleiner Thoncyliner u. etliche <u>beste</u> Frgmts v Briefen	

p. 10-11

48 + 49(½)	wichtig sicher nehmen, etliche grosse ganze & gute fragmte, besonders eine grosse zerbrochene Tafel	51+52 enthält eine (ziemlich ganze) alte Tafel & hunderte kleine Fragmente urältester Zeit in ungebranntem Ton
50 (sehr gut)	viele alte v Tempel + 2 zerbrochene Stempel Sargons auf alle Fälle diese nehmen	 nehmen
		53+54 Case tablets & viele alte Tafeln sehr wichtig

- 12 61 = no 46 (91 frgntary tablets)
- 62 = no ?
- 63 = no 49 (60 frg tablets)
- 64 = no 47 (100 fr tablets)
- ~~65 = no~~
- ~~66 = no.~~
- ~~123 +~~
- ~~125~~
- ~~126 + 127 + 128~~ each 3 skulls frmts
- 65 = no. 107 (Pottery in frgmts; viele Vasen  
2 *ill* wert
- 66 = no. 105 (16 pieces of *ill* Pottery + 1 Pckt Glas  
broken pottery
- 67 = no. 104 (17 Water Vents fr Temple of Bêl
- 68 = no 106 (*blank*
- 69 = no 101 (Bronze + faience + Glass bottles
- 70 = no 110 (
- 71 = no (
- 72 = no (
- 73 = no (
- 74 = no (
- 75 = no (
- 76 = no (
- 77 = no (
- 78 = no (

- 13 Kiste 44   -gal-a
- ill* III Pur-ra-pur-i[a ...)
- Frgmt 
- Pur-ra-bu-ri-ia-as

---

no 11 } Haynes property  
= 112 }

" 6 models of boats

" 21 enthält 44 Gesunde Tafeln

" 26 " (16 gesunde + 4 fr)

.." 45 "

*rest blank*

14 55 = no 119 (Pottery + Phalli) double size  
einige v der oberen Schicht herausgenommen

56 = no 120 (16 vases + bowls, 1 frg of inscribed *ill* Brick  
viell. wichtig *ill*)

57 = no 50, (141 frg. tablets)  
beste Sorte, nehmen.  
einige fragmentarische Cylinder

58 + 59 nehmen alte Tempelfragmente + Liste ält. Zeit

15 60 + 61 (II Cassiten + etliche alte gute Tempel- + **Listensorte**, bessere Frgmte

61 (1 layer)+62 bessere II

63 + 64 einige grosse Frgmte II

---

65 gewöhnliche Pottery in Frgmt, meistens *ill*, aber nicht ganz = 107

66 = 105, 16 pieces of broken pottery  
sehr schlecht

67 = 17 Water vents, die 3 oberen besten *herausgenommen*  
viell untere noch ein bis 2 nehmen

16 68 = 106 aller....ste Pottery  
nicht nehmen

69 = 101-400 Spindeln, *ill*, schöne *ill* Vase  
noch nicht entschieden

70 = 14 Packete Glass-Frgnte (nehmen)

71 = 20 fine Glass bottles  
sicher nehmen, etliche gute

72 = Masse v Glass Splittern

73 = 111 (Frgnts of Glass in 14 parcels Pottery *ill* nehmen, etliche emaillierte darin  
+ 1 kleines Fragmt mit *ill*.)

74 = 105 (25 frgts of Water Vents, Temple des Bêl

alle diese nehmen)

17 75 = no 111 Glassschund

76 = wichtige Kiste mit Resten von Leinwand v Grab  
alte Bronze + alte Tafel *ill*.  
wichtige Relieffgnte

77 = 58 (68 frty, }  
66 sound } tablets  
sehr wichtige Kiste Tafeln, Briefe, Kassiten, 2<sup>te</sup> Dyn v Ur

78 = 480 whirls tripods etc.  
do (= no 100)

79 = ohne N<sup>o</sup> Fragm de *ill*

80 = 59 (96 fr + 65 sound tablets

77 + 80 =  
alte + viele gute Cassiten

18 80 = 116 (151 frgt  
sehr schlecht

81 = Hay. no. 130  
nehmen

82 = Hay. no. hat keine *ill*., 31 inch langer Knochen from depth of 20 feet, Jan. 7, 1895


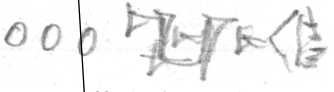
83 = Hay. no 97, 1 large bronze vase  
2 bronze bowls  
nehmen 42 several stray frgnts  
1 Stück mit Herkelchen *gebr. ill*.

84 = Hay. no. 123  
3 Skulls; 1 sehr guter  
drin gelassen alles

19 85 = Hay. no. 128 (Bones + Beads)  
sehr schlecht, 2 Ringe + Anzahl schlechte beads herausgenommen

86 = Hay. no. 126, 3 skulls  
sehr schlecht in Stücken  
très mauvaises

87 = Hay. no. 127, 3 skulls  
schlecht erhalten

- 88 = Hay. no. 124, 3 skulls  
schlecht
- 89 = Hay. no. 125 2 skulls  
sehr schlecht
- 20 90 = Hay. no *blank*  
sans valeur
- 91 = Hay. no. 6  
ziemlich gute pottery  
nehmen 1 kleines *ill* Boot v Thon, *ill.*  
die kleine Box mit Jewelry + ein frgmt einer Vase  
+ 1 kleines bot
- 92 = Hay. no 5, large vase  
viell ? ordinäre aber gut erhaltene pottery
- 93 = Hay. no 7 ganz gewöhnliche Pottery  
nur  herausgenommen  
viel aber wertlos
- 94 = Hay. no. 4 pottery ordinär  
nehmen (ordinär aber *ill.* *gar* besser)
- 21 95 = Hay. no. 3  
*blank*
- 96 = Hay. no. 23, 140 frgm de tablet  
Kiste sehr gute Fragmente  
ein ganz grosses, wichtiges oben
- 97 = Hay. no. 25 (124 frg tablet  
*blank*
- 98 = Hay. no 1  
ein clay stamp of Sargon herausgenommen  
sicher nehmen (gut erhalten)
- 99 = Hay. no. 10, ein Mine ohne Inschrift von unter Narâm-Sin's Plattform hineingelegt  
sicher nehmen
- 22 1) 1 enthält grosse Ente, fragmentarisch  
+ 4 Frgmt einer Marmorplatte mit Inschrift am Rande  
 (*OSP 2, no. 39*)
- 2) 3 grosse Mortar, 1 *ill.* (schwarz)  
les deux en pierre bleu  
= no 134
- 3) = no 133, Letter of 30 November 1895
-

100 = Hay. no. 9 Frgmt v Sarcophgen mit weiblichen Figuren

101 = Hay. no. 101 eine ganze Reihe v Siegelcylindern  
sicher nehmen drin gelassen

- 23 102 = Hay no 22 (200 frg tablets)  
grössere Frgmt der Cassiten  
eins double + 1 Frg des Boundary Stone + 16 fragm des VIII
- 103 = Hay. no. 61 (93 frg tablets)
- 104 = Hay. no. 28 (118 frgm)  
**eine** Fragmte der Cassiten
- 105 = Hay no 27 (207 fr.)  
eine Kiste schlechte Frgmt
- 106 = Hay no 13 (173 fr)
- 24 107 = Hay. no. 26 (4 packges of reunited tablets)  
10 frgnty tablets  
11 sound tablets } sicher nehmen  
2 sound tablets } 2 Packte *ill.* + grosse Tafeln hinein
- 108 = Hay no 83 (158 fragnts)
- 109 = Hay. no 80  
**blank** Sound tablets } sehr wichtig  
80 frg tablets } sicher nehmen
- 110 = Hay. no 87 viele neubabylonische gute }
- 111 = Hay no 12 (6 small sound tablets + 104 frgnts)  
einige ganze alle Darius, braunes papier  
v Darius
- 112 = Hay no 15 (250 fr. tablets)
- 25 113 = Hay. no. 85 (106 frgts)  
weisses Papier (oben) Kassitenschund  
111+112+113 eine Kiste nehmen
- 114 = Hay. no 82 (169 frgnts)  
+ Kassiten + 2 Dynastie v Ur
- 115 = Hay. no. 17 (208 fr)  
+ nichts gutes } sicher nehmen  
etliche recht gute von no 116½ u 1 Cadaster
- 116 = Hay no 84 (64 sound, 120 fr  
Kassiten sehr gute + 2 Dyn v Ur
- 117 = Hay no 14 (209 fr) } 116½-118 Schund
- 118 = Hay. no. 20 (240 fr) } unten einige wenige ganze  
v II Ur (kaum nehmen)

- 26 119 = Hay no 86 (128 frg)  
 enthält einige recht nette Tafeln  
 II der Cassiten + anderer Dyn
- 120 = Hay no 81 (133 fr)  
 (Schund)  
 119+120
- 121 = Hay. no 18 (200 fr. tablets)  
 einige grosse da... sicher nehmen
- 122 = Hay no 45 (56 inscrib charms + frag  
 1 of Terra Cotta Dog } nehmen  
 1 Sect of ill. cone }  
 10 Fragn tablets, reunited + wrapped
- 123 = Hay. no 63 (63 fr tablets) } Cassiten  
 124 = Hay. no. 16 (177 Frags) }
- 27 125 = Hay no 19 (138 frgnt blts } sicher nehmen  
 126 = Hay no. 21 (44 sound, 55 fr) } einige sehr gute Cassiten + andere  
 127 = Hay no. ?  
 grosse Frngte v Cassiten  
 (II)

*rest of page blank*

- 28 128 = Hay no. *blank*  
 129 = Hay no. *blank*  
 130 = Hay. no *blank*  
 131 = Hay. no. *blank*  
 132 = Hay. no *blank*  
 133 = Hay. no. *blank*
- 29 134 = Hay. no. *blank*  
 135 = Hay no *blank*  
 136 = Hay. no. *blank*  
 137 = Hay. no. *blank*  
 138 = Hay. no *blank*  
 139 = Hay no *blank*
- 30 140 = Hay no *blank*  
 141 = Hay no *blank*



142 = Hay. no *blank*

143 = Hay no *blank*

144 = Hay no *blank*

145 = Hay no *blank*

*p. 31 and 32 blank*

33 no 11. 12 (6 smll sound + 104 fr tablets)

no 13 = 123 fr tablets

no 10 = *blank*

no 82 = 169 fr tablets

no 86 = 126 " "

" 81 = 133 " "

" 84 = 64 sound + 120 fr tablets

" 80 *blank*

" (1)18 = 200 fr tablets

" 19 = 138 fr tats

" 14 = 209 " "

" 63 = *blank*

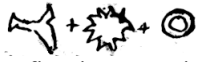
" 45 = *blank*

*rest of page empty*

Haynes' No.				
1	= no. 36	} (Ismail) ich glaube, in eine Kiste zurückgepackt(1+2)	191 fr.	
2	= no. 131		42 "	
3	= no. 30	} in eine zurückgepackt (3+4)	104 "	
4	= no. 34		115 "	
5	= no. 33	} ich glaube in eine zurückgepackt (5+6)	84 "	617 p
6	= no. 35		81 "	
7	= no. 31	} in eine gepackt (1 jar cover)	87 "	
8	= no. 55		66 "	
9	= no. x5	} Abud el G (9+10)	c. 178 "	+
10	= no. 72		142 "	
11	= no. 76	} (11+12)	s. 22+105 fr	829 piec.
12	= no. 74		128 fr.	
13	= no. 53		148 (106 s + 42 f)	
14	= no. 77		234 (172 s + 62 f)	
15	= no. 79		310 (223 brok + 87 f)	+
16	= no. 29 (Abud el G)		99 (58 s + 41 f)	
17	= no. 57	} (Ismail) eine Kiste	143	1267 piec.
18	= no. 78		334 (47 s + 287 f)	
19	= no. 75		89 fr.	
20	= no. 54		179 pieces	
21	= no. 32		483 pieces	+
22	= no. 56		142 "	
23	= ?		c. 100	988
			<hr/>	
			c. 3701	

Tafeln

- a. enthält grosse Deckel  
~~++~~ 7+8
- b.
- c.
- 1+2 (ungebr. elendes Zeug *ill*)  
 3+4 ( " " " )  
 5+6 ( " " " )  
 9+10 (sehr voll, aber fast ausschl. Cassitenschund)
- 11+12
- ~~++~~ 13 (etliche graue, grössere ungebrannte Tafeln)
- ~~++~~ 14 (viele gute Cassiten & Könige 2 Dyn v Ur  
 15 (viele schlecht praeservierte Cassiten)
- ~~++~~ 16 (graue, ungebrannte Tafeln, Briefe etc.)  
17+18 (etliche recht gute (Cassiten).
- 19 (etliche bessere Stücke darunter)
- ~~++~~ 20+21 (sehr gute Kiste, beste) viele (250 kleine Ba-bi-ba tafeln).  
 21 enthält Teile v no 20, Anzahl sehr gute II Dynastie v Ur darin
- ~~++~~ 22 (Fragment eines 6eckigen cylinders + anderer Sachen, grössere  
 Tafeln)
- { — 22-25 (hat etliche schöne darin)  
 26-28  
 — ~~+~~ 29 (etliche sehr schöne grosse *ill*stücke)
- 30
- ~~++~~ 31+32 enthält alles was von Zigurat-Tafeln übrig war (v no 12) u etliche  
 größere Fragmente.
- ~~++~~ 33+35 enthält Terracotten, Bronzen etc, Beads  
 34+36 (Kassitenschd, etliche Fragm v Briefen)
- ~~++~~ 37+38, etliche Fragmente v Briefen, sonst viele Kassiten-Reste, ein  
 kleiner halber Thoncylinder mit etlichen  
 schön geschriebenen Zeichen.

			Transfer	3701
24	= no. ?		c. 100 fr	
25	= no. 40		124 fr.	
26	= no. ?		c. 100 fr	
27	= no. 42		104 fr	
28	= no. 41		97 "	
29	= no. 44		66 pieces	
30	= no. 38		109 fr	5001
31	= no. 12		29 p. = 24 sound + 5 fr	
32	= no. 64		161 fr.	
33	= no. 98		Terracotta	
		+ figurines, Göttinnen etc		
34	= no. 69		135 fr.	
35	= no. 96	Box with beads, cylinders, gold, silver + bronze-rings, evil eye		
36	= no 66		130 fr.	
37	= no. 65		142 fr.	
38	= no. 67		111 fr.	+
39	= no. 68		107 fr.	
40	= no. 70		123 fr.	
41	= no 71		105 fr.	
42	= no 116		151 fr.	1165
43	= no. 114		140 fr.	
44	= no. 115		224 fr.	+
45	= no. ? (Label lost)		c. 150 fr	
46	= no. 92 (40 pilfered + recaptured)		c. 120 fr	634

- 39+40 (enthält etliche Frgnte v Briefen Cassitenschund)
- 41+42 (etliche Briefe drin, *ill* " )
- 43+44 (absoluter Kassitenschund)  
sicher nicht nehmen)
- 45 (Kassitenschund, etliche Fragmente v Briefen darunter
- ✂ 46+47 (alte Tempelfragm., kleine Fragm in Pacqueten von no 47)  
wertlos, aber wichtig für *blank*
- ✂ 48+49½, wichtig, sicher nehmen, etliche große, ganze u. gute Fragmente,  
besonders eine große zerbrochene Tafel
- ✂ 50 , sehr gut, viele alte vom Tempel + 2 zerbrochene Stempel Sargons.
- ✂ 51+52 enthält eine ziemlich ganze alte Tafel + Hunderte kleiner Fragmente  
uralter Zeit in ungebranntem Thon
- ✂ 53+54 Case tablets + viele alte Tafeln, sehr wichtig (*ill.* Lage schöne erhaltene!!)

- Pottery ✂ 55 (Pottery + Phalli, nur obere Schicht untersucht)
- " ✂ 56 (16 vases + bowls, 1 frgm of inscribed brick, viell *ill.* Marmor Vasen)
- ✂ 57 (141 fragm Tafeln, bessere Sorte nehmen, einige fragm ungebrannte  
Cylinder)
- ✂ 58+59 alles Tempelfragmente + Liste ältester Zeit
- ✂ 60+61 Cassiten (II), etliche alte gute Tempel
- ✂ 61 (1 Layer + 62) bessere grössere Fragmente
- ✂ 63+64, etliche " "

unter diesen muss <sup>54</sup>Liste II Dyn v Ur *ill*

Transfer: 6800  
(v letzten Pensum 634)

no. 47 = no. 94 179 fr. tablets  
 no. 48 = no. 90 126 fr. "  
 no. 49 = no. 91 (Temple Hill) 110 fr. "  
 6 drin  
 no. 50 = no. 95 120 fr. " +  
 no. 51 = no. 62 133 fr. "  
 no. 52 = no. 89 (Temple) 198 fr. "  
 no. 53 = no. 93 (2 parcels 119 fr. "  
 19 case tablets  
*Ill.*)

no. 54 = no. ? Temple Hill c 150 fr. " 1136  
 Masse kleinerer Tafeln v Zeit Narâm-Sins

~~no. 55 = no. 119 (Pottery + Phalli) nur etliche von der oberen Schicht herausgenommen~~

~~no. 56 = no. 120 (16 vases + bowls, 1 fr. of inscribed brick viell. wichtig), 2 emailierte  
 Deckel + 1 *ill.* v. Bronze herausgenommen~~

~~no. 57 = no. 50, bessere Sorte Fragmente, einige Frgmt v alten eckigen Thon-cylindern  
 141 fr~~

no. 58 = no. 122 (73 fr.)	Tafeln	}	772
no. 59 = no. 48 (97 fr.)	"		
no. 60 = no. 51 (142 " )	"		
no. 61 = no. 46 (91 fr.)	"		
no. 62 = no. ? 45(?) (68 fr	"		
no. 63 = no. 49 (60 fr)	"		
no. 64 = no. 47 (100 fr.)	"		

Pottery  
~~no. 65 = no. 107 (Pottery + Fragm. v Vasen, viele können zusammengesetzt werden)~~

~~no. 66 = no. 105 (16 pieces of very bad pottery, broken + 1 packet of glass, very bad)~~

~~no. 67 = no. 104 (17 water vents of Temple of Bêl)~~

no. 71 = no. 58 (266 ganze + 68 fragment. tablets) sehr wichtige Kiste	}	685
no. 80 = no. 59 (65 sound + 296 fragmt " )		

64 Kisten Tafeln

9393

77+80

Briefe; 2. Dyn v Ur, + Stamp v Narâm-Sin (gut erhalten)  
+ 2 Lagen von 80 (Cassiten, viele gute)

80 (Cassitenschund)

N<sup>o</sup> II

96+97

96 = Hay. no. 23 = 140 fragments of tablets

97 = " no. 25 = 124 " " " 264

(I-II)

Diese Kiste enthält grössere, wichtige Fragmente, ein ganz grosses oben

102+103

102 = Hay. no. 22 = 200 fragm. tablets

103 = Hay. no. 61 = 93 " "

+

293 fragm. tablets

293

2 kleine ganze Cassitentafeln aus d. F....

1 Fragm. des boundary stone " " "

16 fragm von Mound VIII (von pottery box)

+ grössere Fragm der Cassiten

+

Nicht 104+105+106 = Schund der Cassiten

104 = Hay. no. 28 = 118 fr

105 = " " 27 = 207 "

106 = " " 13 = 173 "

498 fr

498

I

107+108 = Hay no. 26 = 87 pieces (4 packages of reunited tablets,

+ 2 large ones retained)

+

Hay. no. 83 = 158 fragments

245

245

2 grosse schöne Packete hineingethan + etliche grosse Tafeln

I

109+110

109 = Hay. no. 80 (17 sound + 180 fr. tablets) = 197

110 = " " 87 (46 sound, 24 slightly broken) +

101 fragnt ones = 171

368

368

viele wichtige ganze darunter, Neubabyl. + Ašur-etil..-ilani

Total 11061

40 111+112+113 = Hay. no 12+15+85 (6 small sound tablets + 104 Fragmts of Tablets from brick pavemt N to of Ziggurat) + 250 fr nehmen  
106 fragmt, weisses Papier, (oben Kassitenschund)

114+115+116(1/2) (114 = Hay. no 82 = 169 fr.) = Kassiten (gute) + 2 Dyn. v Ur (gute)  
(115 = " " 17 = 208 " ) nichts gutes } einige  
sicher (116 = " " 84 1/2 = 64 sound) " " } recht gute  
1 Cadaster 120 1/2

117-118 (+116 1/2) (117 = Hay. no 14, 209 fr. } unten einige wenige ganze  
kaum (118 = " " 20, 240 " } v 2 Dyn v Ur.

119-120 (119 = Hay. no. 86, 128 fr, einige recht nette Tafeln der Cassiten + andere Dyn  
(120 = " " 81, 133 " , Schund

II

121-122 (121 = Hay. no 18 (200 fr. tablettes) } einige grosse drin  
(122 = " " 45 (56 inscr charms) }

ganz Terracotta dog  
sicher Cone 1 Sect of inscribed cone  
16 fragm tablets reunited + wrapped

123-124 (123 = Hay. no. 63, 63 fr tablettes } Cassiten  
(124 = " " 16, 177 " " }

im Falle das geht, weil nicht sicher ob Hay no 45 = no 112 oder no 123.

41

Ausgepackt.

Dienst., Sept 7 6 Kisten, = zurückgepackte 4 Kisten 619 fr

Mittw, " 8 6 " = 7+8 | 9+10 | 11+12 = 3 "

---

125-126 (Hay. no. 19 (125) = 138 fr tablettes }  
sicher ( " " 21 (126) = 44 sound " } einige sehr gute Cassiten + andere  
55 fr. " }

127 = Haynes, no ?  
grosse Frngt v Cassiten (viell)

128 = Whorls (2)

*rest of p. 41 and p. 42 blank*



43 no 11. 12 (6 small sound + 104 fr tablets)

no 13 = 173 fr tablets

no 10 = *blank*

no 82 = 169 fr tablets

no 86 = 126 " "

" 81 = 133 " "

" 84 = 64 sound + 120 fr tablets

" 80 *blank*

" (1)18 = 200 fr tablets

" 19 = 138 fr tablets

" 14 = 209 " "

" 63 = *blank*

" 45 – *blank*

*rest of page empty*

44	W.	B	Fr	W D	B D	To
35			81			
36			191			
37			153			
38			101			
39			86			
40			123			
41			97			
42			104			
43			115			
/44	2	25	33	6		66
/45	10	58	charms			68
46			91			
47			100			
48			97			
49			60			
50			144			
51	3 jarcovers		142			
52			196			
+53	106		40	2		148
+54	145		34			179
55			66			
≡≡≡56 Double size	75		63	4 Prisms, stele		142
≡≡≡57 "	17		126			143

45 Skulls

Pottery, Bronze continued.

○ = nicht nehmen

no. 86 = Hay. no. 126, (3 skulls), sehr schlecht, fast Staub

no. 87 = " " 127 (" " ), schlecht erhalten


no. 88 = " " 124 (" " ), " "

no. 89 = " " 125 (" " ) sehr schlecht " .

nicht nehmen  
no. 90 = " " 8 (1<sup>st</sup> coffin lid + 2 fragm. of green glazed coffin)

no. 91 = Hay. no. 6 (ziemlich gute pottery, (jewel-can herausgenommen + 1 model of clay + 1 fr. of a vase)

no. 92 = Hay. no. 5, ordinäre, aber gut erhaltene pottery


no. 93 = Hay. no. 7, ganz gewöhnliche Pottery, nur 1  darin

no. 94 = Hay. no. 4, ordinäre pottery, (18 Stück) (1 grosse runde Schüssel darunter)

viell  
no. 95 = Hay. no. 3 ordinary pottery

sicher nehmen  
no. 98 = Hay. no. 1 (Sargon brick stamp herausgenommen) Temple-Hill (alles sonst dringelassen)

sicher  
no. 99 = Hay. no. 10 (Mortar from ziggurat, ein Mörser ohne Inschrift von unter der Platform Narâm-Sins hineingelegt von Bedri.

nicht  
no. 100 = Hay. no. 9, 12 Fragm. v Sarcophagen mit weibl Figuren   
viell.

Hay 101 = Hay. no. 2 (? , aber wahrscheinlich H. no. 2) Sicher nehmen  
eine ganze Reihe von Cylindern + beads dringelassen



*rest of page empty*

46

		W	B	To
<del>58</del>	Double size	266	68	334
<del>59</del>	"	65	298	361 ( <i>sic</i> )
60	Reg.		87	<u><u>        </u></u>
				6932

		Whole	Bro
61	R.		93
62			133
63			63
64			161
65			142
66			130
67			111
68			107
69			135
70			123
71			105
72			142
73			119
74			128
75			84
<del>76</del>		22	205
<del>77</del>		172	62
<del>78</del>		47	281
<del>79</del>		223	87

	Nehmen		Schlecht
	no. 55	Pottery (Vases, etc.) + Phalli, nur obere Schicht untersucht [= Hay no. 119]	
	(nicht.)		
	no. 56	16 vases + bowls, fragm. of inscribed brick, viell auch [= Hay no 120] Fragm von Marmor Vasen	
	nicht		
0	no. 65	(Pottery + Fragm. v Vasen, viele können zusammengesetzt werden) vollständig = Hay. no. 107]	
0		viell. [16 pieces of broken pottery, <u>very bad</u> ] Hay no 105 →	66
	nicht		
+	no. 67	17 water vents from Temple, die 3 oberen besten herausgenommen, viell. liegen darunter noch ein paar ganze. [Hay no. 104]	
0		[allerschlechteste pottery, nicht nehmen] →	68
	oben		
0	no. 69	enthält von Haynes aufgezugene Bronzen + Eisengeräte = Hay. no 120	
+	no. 70	14 Packete v. Glass Splittern, noch nicht untersucht [= Hay. no. 110]	
+	no. 71	20 fine Glass(?) bottles, sicher nehmen, etliche gute	
0		[Masse von Glassplittern]	72
+	no. 73	Emaillierte Pottery (etliche gute) + 1 kleines Fragm mit Maus [= Hay. no 111]	
+	no. 74	25 Fragm. of Vater ( <i>sic</i> ) Vents, Temple des Bêl ( <u>alle drin</u> ) [= Hay no. 103]	
0		[Glasschund, viell = Hay no 111, doch cf. no 73] →	75
+	<del>no.</del> 76	<u>Wichtige Kiste</u> mit vielen Kästen mit Resten v. Leinwand v. Gräbern alter Bronze, etliche älteste Tafeln + einen wichtige Relieffragment.	
+	no 78	= no. 101 (480 whirls, tripods, etc, viell wichtiges darunter)	
0	Viell. nehmen	[= Hay. ? Fragments of water vents] = Hay. no 102?	79
+	<del>no.</del> 81 = Hay 130:	Inscribed Stone Sacrificial List, jar cover in 3 pieces, 2 fragm. of large perforated cover (4), 1 mortar + pestle from N.-Sin level, 10 Hollow-headed Phalli from Caravanserai	
	Bone		
+	no. 82 = (Hay. no ?)	31 inch langer Knochen from depth of 20 feet, letter of Jan. 7, 1895	

+ no. 83 = Hay. no 97: fragm. of 1 large bronze vase (mit Henkel)  
 2 bronze bowls in fragm  
 2 ill. fragm of bronze } ein Stück mit Henkel  
 herausgenommen

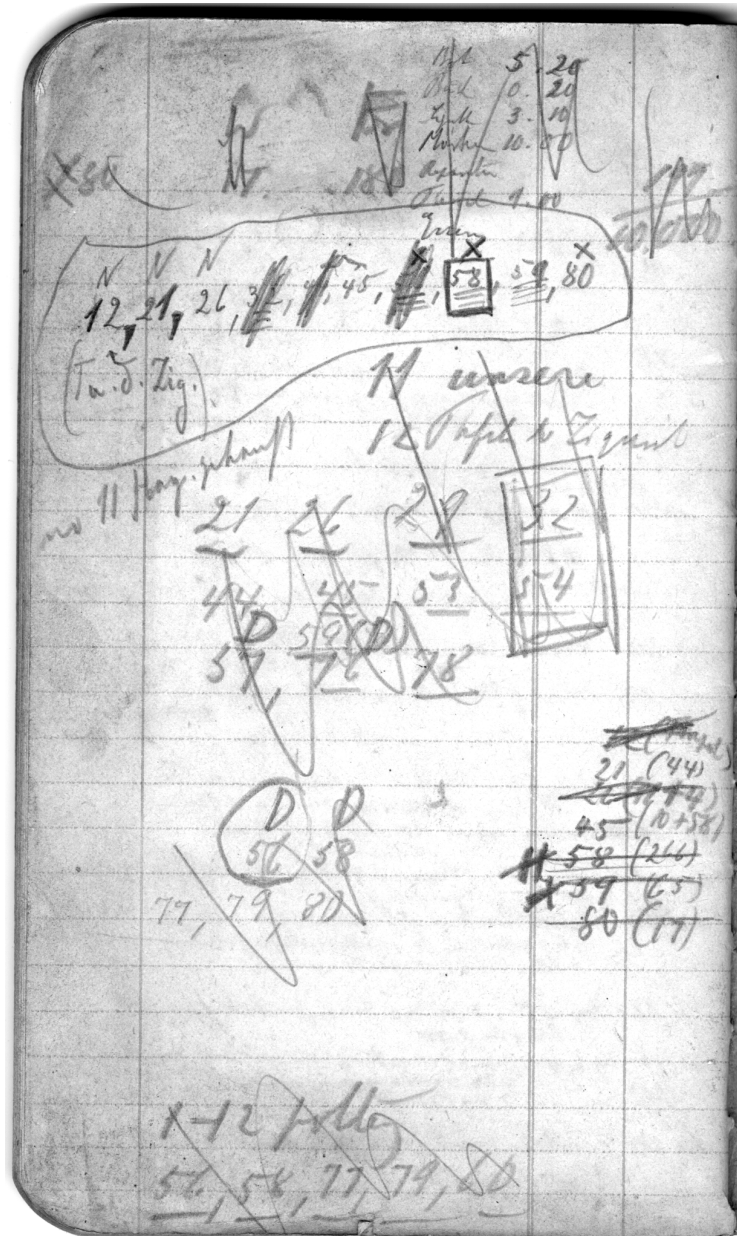
Skulls

+ ~~no.~~ no. 84 = Hay. no 123, 3 skulls (1 sehr guter drin)

0 viell? Hay. no 128 (Bones + Beads), 2 Ringe von Silber  
 + einige beads herausgenommen

85

48



The End