

CORRECTIONS FOR THE PUBLISHED DESCRIPTIONS OF A  
LATE HORIZON MUMMY BUNDLE FROM ANCON

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Three descriptions of a Late Horizon mummy bundle from Peru have been published in Ñawpa Pacha (ÑP) by Stothert (1979a), in Archaeology by Stothert (1979b), and in the Revista del Museo Nacional (RMN) by Ravines and Stothert (1978). Since there are discrepancies among the existing descriptions it is appropriate to set the record straight.

Discrepancies in descriptive detail and in interpretation of the burial resulted from problems of international communication. The authors, Ravines and Stothert, collaborated in opening and photographing the mummy bale, but the two had no opportunity to review their notes together. After the initial work of unwrapping the bundle, Stothert left Peru without examining the contents and subsequently she wrote two articles using only her field notes and the photographs. In preparing the description of the burial for the RMN Ravines relied on a manuscript prepared by Stothert, his own notes, the photographs and his analysis of the contents of the bundle. Stothert, having received the published RMN article early in 1979, was able to make some adjustments in her Archaeology article before it went to press.

In general the RMN article describes the contents of the mummy bundle in most detail. When there is variation between the details published by Stothert in Archaeology and the description prepared by Ravines in the RMN, the latter should be considered more accurate, because Ravines had the actual artifacts to refer to. For instance, in the RMN two pillowlike bundles are described from the interior of the first shroud<sup>1</sup> while the description in Archaeology mentions only one (Stothert, 1979b, p. 10). Since two pillowlike artifacts were found in the first shroud (#314 and #344) and listed in the mummy bale inventory published in the RMN, it seems likely that the RMN description is the more accurate. Despite a few minor problems like this one, all three published descriptions of the Ancon mummy are in substantial agreement.

The RMN article offers important evidence about the provenience of the mummy bale and about the burial associations which is not well described in Stothert's publications. Apparently the mummy bundle was recovered from a deep tomb in a low, sandy area of Ancon known as the Pampa de San Pedro or the Barrio de Las Esteras (Ravines and Stothert, 1978, p. 155). Within the tomb were found ceramic and gourd vessels, one of which was an imitation Inca vase, that are described in detail and illustrated in the RMN article. These associated artifacts help to confirm the assignment of the burial to the Late Horizon.

Immediately after unwrapping the mummy Stothert believed that the person buried in the bundle was a "plain" woman. The title of the article in the RMN reflects Ravines' and Stothert's original position

with respect to the status of the deceased. However, Stothert later changed her opinion, and her current interpretation is represented in the two articles published in English. Stothert states that "[a]lthough the bundle was not lavishly adorned, a few items of prestige...indicate that the dead person did enjoy high status, at least in the local context" (1979a, p. 14; 1979b, p. 10).

In her two articles Stothert focused on the importance of cloth in the mortuary bundle. Her estimates of the amount of cloth expended in the preparation of the mummy bundle were based on her field notes and on the examination of photographs, but not on an examination of the actual textiles. The publication of the inventory of the contents of the bundle in the RMN and the presentation of the textile analysis carried out by Helen Engelstad and Rogger Ravines (Engelstad and Ravines, 1978) offer an opportunity to reassess the conclusions that Stothert based on incomplete data.

Table 1 lists all the pieces of textile for which there is a description in the RMN article. I have not included in the list the nets and net bags that were recovered from the mummy bundle. Unfortunately any estimate of the amount of cloth included in the mortuary gear is still something of a guess because many of the textiles were in such poor condition that they were neither measured nor described. Often Engelstad and Ravines give the dimensions of the cloths that were analyzed without offering any estimates of the original size of each textile. Another problem is that my review of the evidence published by Engelstad and Ravines uncovered a few inconsistencies which impede an accurate description of the textile inventory. These inconsistencies will be mentioned in the text below and in the notes to Table 1. Still, the data provided in the RMN article give a good idea of the number of pieces of textile found within the bale, and they offer better descriptions of the individual woven pieces. Based on this information I can offer a more secure estimate of the total amount of cloth expended in the burial.

Five cotton textiles make up the bulk of the cloth found in the mummy bale: the dead person's clothes and four shrouds. The dress or tunic (#269, indicating that it was the 269th item removed from the mummy bundle during unwrapping) has no catalog number because it is totally disintegrated. Judging from the photographs this was a piece of plain weave, cotton cloth that, according to Ravines, was new, striped and pinned in place at the woman's shoulders by tupus (Ravines and Stothert, 1978, p. 156). In order to estimate the dimensions of this fabric I assume that the dress was a garment like the one described by Rowe (1946, p. 235) for Inca women. In order to drape a rectangular cloth around the human body in the manner described by Rowe one would need a textile about 100 cm. wide and at least 150 cm. long. This is my estimate for the minimum dimensions of this textile.

In Archaeology I mentioned that another textile, possibly the woman's mantle, lay folded over her chest (Stothert, 1979b, p. 11). Ravines does not mention this detail in his descriptions, and no such cloth is listed in the inventory or among the textiles analyzed. It is possible that what I saw in the field, and what I think I see in the

close-up photographs (fig. 2) is simply the relatively well-preserved front of the dress described above. Lacking a satisfactory description of this cloth, I shall omit it from my inventory of textiles.

The first shroud that enfolded the dead woman bears the same number as the tunic/dress (#269) but also has the catalog number An 39/76 (fig. 1). The two descriptions of this item given in the RMN do not entirely agree with each other. In one place this textile is described as a plain, cotton cloth with warp stripes composed of two lengths of fabric sewn together like a shirt or uncu (Engelstad and Ravines, 1978, p. 177). Elsewhere in the article Ravines writes that this shroud is composed of two pieces: a striped cloth that wrapped the body's head and another large, plain cotton cloth (Ravines and Stothert, 1978, p. 159). Stothert's notes indicate that one cloth formed the first shroud, but the photographs show that the cloth around the head is striped while no stripes are visible in the heavily stained fabric that enshrouded the body. Although the nature of this first shroud is in doubt, I accept the dimensions of the textile given in the RMN.

The second shroud (#260, An 32/76) is a plain weave cotton cloth that disintegrated after removal from the bundle. The only available estimate of the size of this textile is that it was approximately 100 cm. wide (Ravines and Stothert, 1978, p. 159). Since, according to my field notes, the bundle wrapped in the second shroud measured 100 x 50 x 30 cm.,<sup>2</sup> then one would need approximately 200 cm. of cloth 100 cm. wide in order to cover the surface area of the bale. Thus my estimate of the original dimensions of this second shroud is 200 x 100 cm.

The third shroud (#24, An 17/76) is composed of two cloths (one 152 x 69 cm., the other 155 x 69 cm.) that were sewn together along the sides of the bundle. The cloth was decorated with painted designs composed of interlocking serpent motifs (Engelstad and Ravines, 1978, p. 177). This cloth, being about 21,183 cm.<sup>2</sup> in surface area, is not quite adequate to cover the surface of the bundle which, according to my field notes, had the dimensions of 100 x 70 x 40 cm. Given the possibility of a 10% error in the measurement of the bundle, I shall assume that the bundle was actually smaller than the recorded measurements and I shall accept the published dimensions of the third shroud as my estimate of the original size of that textile.

The fourth or outermost shroud (#10, An 10/76) was probably composed of four pieces of cotton cloth which fell into fragments after the mummy was unwrapped. In his description of this shroud Ravines reports that the cloth consisted of two lengths of textile, each length made of two similar pieces sewn together along their lengths. One cloth was a striped warp-faced textile in purple and white measuring 170 x 78 cm. The other piece was a plain, coarser cotton textile measuring 140 x 73 cm. that weighed more than the first cloth (Ravines and Stothert, 1978, p. 166). Two pieces of cloth with the dimensions given by Ravines could not have covered the surface of the completed mummy bundle, which measured 120 x 90 x 50 cm. If, however, there were two pieces of cloth measuring 170 x 78 cm., and another two pieces (sewn together) each measuring 140 x 73 cm., then their total surface area would be 46,960 cm.<sup>2</sup>,

and this amount would provide more than enough cloth to cover the bundle (with its surface area of about 42,600 cm.<sup>2</sup>). I shall assume that the fourth shroud originally consisted of two cloths, each composed of two pieces sewn together, totaling 620 cm. of woven textile.

These five pieces of cloth account for approximately 13.7 m. of textile. Eighteen other pieces of cloth listed in Table 1 are more variable in width and their total woven length is about 6.5 m. Many of these textiles are small, loosely woven pieces with up to four finished edges. The descriptions of these textiles are in the RMN article, and they are summarized in Table 1.

Using these data from the RMN I can rewrite the estimates made in my original NP article. Excluding the dead woman's mantle (for which I have no description), the five major textiles include about 13.7 m. of plain weave cotton cloth averaging about 70 cm. in woven width.<sup>3</sup> The average number of threads per cm. can be calculated by taking the estimates for textiles An 10/76, An 17/76, An 32/76 and An 39/76, adding the individual thread counts (see Table 1) and dividing the total by four. The average number of warps per cm. is 12.76.<sup>4</sup> Thus, in order to manufacture the 5 larger textiles in the sample, one would need a minimum of 12,227 m. (12.75 X 70 X 13.7) of 2-ply cotton thread for the warps alone. The average weft count for 4 of the large textiles is 5.5 per cm. The 5 larger fabrics would require at least 5,275 m. (5.5 X 70 X 13.7) of thread for the wefts. The total amount of thread required for weaving these 5 textiles would exceed 17,502 m.

The other 18 pieces of cloth represent about 6.5 m. of textile averaging perhaps 25 cm. in width with about 9 warps per cm. and about 4 wefts per cm. The average thread counts were made by adding the estimates for 15 textiles found in Table 1 and dividing the total by 15. The production of these 18 pieces of cloth would require a minimum of 2,113 m. (6.5 X 25 X 9 plus 6.5 X 25 X 4) of 2-ply cotton thread.

All 20.2 m. of cloth would require a minimum of 19,615 m. of cotton thread. Using the same assumptions that I employed in the previous article (Stoother, 1979a, note 10), I calculate that the spinning and doubling of this amount of thread would require about 874 hours.

Proceeding as I did in the previous article, I shall estimate 2-3 hours for warping the threads for each of the textiles and for setting up the backstrap loom. This adds about 58 hours (23 textiles X 2.5 hours = 58 hours) to the amount of labor invested in the textile production.

Inserting the weft at a rate of about 15 cm. per hour, one would need about 91 hours to finish the 5 pieces of cloth that make up the bulk of our sample. Assuming that the weft insertion was accomplished more rapidly for the smaller textiles (say, at a rate of 30 cm. per hour), then the remaining 6.5 m. would represent a labor investment of perhaps 22 hours.

There is not sufficient information to reconstruct how each of

the textiles in the sample was finished. At least some of the pieces had four finished edges, suggesting that a labor estimate should be offered for finishing each textile. Those edges which terminate in loops probably represent less labor investment. Lacking further details, I shall omit any estimate of the labor involved in finishing the cloths.

In total, then, the 5 large textiles would have required at least 883 hours for the spinning of the thread, preparation of the loom, and insertion of the weft. The labor estimates for the production of the other 18 cloths would bring the total to 1045 hours for the production of all the cloth in the bundle.

I consider these labor estimates to be better than the estimates that I made earlier. Still they are based on little more than guesses about the amount of time needed to spin and double cotton thread or the amount of time needed to finish the particular textiles in question. My estimates still omit the considerable expenditures of labor involved in acquiring cotton, preparing the cotton for spinning, weaving in striped decoration, painting a textile, or in making net bags which were also found in the mummy bale.

The publication of the RMN article, including its complete inventory of the contents of the Ancon mummy bundle and with the results of the analysis of the textiles and the plant remains found in the bundle, has improved the available description of the burial. There are very few actual discrepancies among the three published articles, although the RMN in most cases offers greater detail than the other versions. The tying of the rope bag around the completed mummy bale is described in greatest detail in the NP article prepared by Stothert. The interpretations offered by Stothert in her two publications in English need not be substantially altered in light of the analyses published in the RMN. The additional details reinforce my opinion that the cloth expended in the burial represents an impressive amount of skill and effort, and the inventory of plant remains and other artifacts confirms the fact that most of the contents of the bale were raw materials native to the coast and objects manufactured in the local area.

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#### NOTES

<sup>1</sup> Ravines and Stothert, 1978, p. 157; the two pillows are items #344 and #314.

<sup>2</sup>Both Stothert, 1979b, p. 13, and Ravines and Stothert, 1978, p. 164, indicate that the bundle wrapped only in the second shroud measured 110 cm. in length. My field notes and my estimates from the photographs both indicate that the bundle was only 100 cm. long at this point in unwrapping.

<sup>3</sup>I am using the published estimate for the average width of the textiles analyzed by Engelstad and Ravines (1978, p. 174). I do not know how this average was determined or if it applies to all the textiles or just the larger pieces.

<sup>4</sup>In my previous article (Stothert, 1979a) I inadvertently confused the figures for warp counts and weft counts; I claimed that my estimates were for weft threads whereas they are actually for warps.

<sup>5</sup>The information in the Table was gleaned from the inventory and text of the RMN article including the appendix on textiles by Engelstad and Ravines. I often include two sets of dimensions for a single cloth, reflecting the fact that contradictory sets of measurements were reported in different parts of the RMN article. Where new estimates of the dimensions of the textiles are offered by Stothert, they are explained in the text or in notes to Table 1.

<sup>6</sup>There is confusion regarding #270 and #271 in the RMN article. Item 270 is described as a bundle containing vegetable remains, and #271 as the open weave, cloth wrapping of the bundle (Ravines and Stothert, 1978, p. 157 and App. 3). Item 270 is illustrated (Ravines and Stothert, 1978, p. 200 top; An 39/76a), and #271 (An 39/76b) is described technically in App. 1 (p. 175, Cuadro 1). The 6 fragments of An 39/76b described do not correspond to the illustrated textile (#270, An 39/76a) which is clearly an open weave fabric, while the 6 fragments are rather tightly woven. I have resolved the confusion by assuming the existence of two textiles. In this Table the description and dimensions of the open weave cloth (#270) are those given in App. 3 for #271; the description of #271 is taken from App. 1, Cuadro 1 only.

<sup>7</sup>Item 316 (An 43/76) is shown in position in fig. 2. The same cloth is illustrated in the RMN article (p. 200 bottom) but is mislabeled An 55/76. It is likely that the captions of the two lower photographs on p. 200 were reversed. Item An 43/76 illustrated there might actually be An 55/76 (#344).

<sup>8</sup>The only dimensions given for this item (16 x 18) correspond to the size of the roll, and not to the dimensions of the cloth itself. In order to calculate the minimum amount of cloth required to make the roll, I have figured the surface area of a cylinder measuring 16 cm. in length and 5 cm. in diameter (about 290 cm.<sup>2</sup>). A textile 16 cm. long and 18 cm. wide could cover the surface area. Surely, however, the original piece was much larger since the bulk of the roll was made up of cloth. No other stuffing for the roll is mentioned in the description.

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TABLE 1

Inventory of Cotton Textiles from Mummy Bundle<sup>5</sup>

Reference nos. from RMN article	Description	Thread count warp/weft	Estimated di- mensions (cm.) length/width	Published illustrations
10 An 10/76	fourth shroud	11/4	620 x 78	<u>NP</u> , figs. 1-3
24 An 17/76	third shroud	14/7	307 x 69	<u>Archaeology</u> , p. 10, 15
26 An 18/76a	striped, open weave cloth with two selvages and ends terminating in loops	8/3	29 x 22 or 27 x 22	
32 An 18/76g	miniature shirt ( <u>uncu</u> ) of loosely woven cloth with 2 selvages and terminating in loops	5/3	14 x 14	
34 An 19/76a	striped, open weave cloth with 4 finished edges	10/3	42 x 42 or 45 x 45	<u>RMN</u> , p. 203 center, An 19/76; <u>Archaeology</u> , p. 12 top
92 An 19/76n1	open weave cloth, probably a miniature shirt, with selvages and terminating in loops	10,12/3	24 x 17 or 18 x 13	
93 An 19/76n2	identical to #92	10,12/3	24 x 17 or 18 x 13	



242	An 27/76a	striped, open weave cloth with blue stripe along border; 2 selvages and terminating in loops; probably a miniature shirt.	5/3	29 x 14 or 30 x 23	
243	An 27/76b	miniature shirt ( <u>uncu</u> ); open weave with 2 selvages and terminating in loops	7/3	20 x 22 or 15.5 x 16.5	
252	An 28/76a	very fine, plain weave cloth, probably beige with stripes in 3 colors; found wrapping a <u>Spondylus</u> valve	10/4	76 x 76 or each piece 40 x 60 or 80 x 60	
260	An 32/76	second shroud	14/5	200 x 100	
262	An 34/76	bag of plain cloth, containing vegetable remains and balls of thread	—	10 x 10	
269	none	dress or clothing in which the body was dressed	—	150 x 100	<u>Archaeology</u> , p. 17
269	An 39/76	first shroud	12/6	94 x 88	fig. 1; <u>FMN</u> , p. 162 view 8
270	An 39/76a	open weave cloth <sup>6</sup>	—	30 x 24	<u>FMN</u> , p. 200 top
271(?)	An 39/76b	six fragments of tightly woven cloth; fragments have variable thread counts	18/8 14/6 12/5 12/5 10/3 18/6	9 x 9 13.8 x 8 6 x 7 8 x 4.5 11 x 6 —	

Reference nos. from HMN article	Description	Thread count warp/weft	Estimated di- mensions (cm.) length/width	Published illustrations
314 An 42/76	coarse, well-used and patched, plain weave cloth with stripes and at least three finished edges	14/7	129(?) x 68	
316 An 43/76	rectangular, open weave cloth with selvages and terminating in loops	9/3	43 x 43 or 39 x 39	fig. 2 <sup>7</sup>
326 An 50/76	coarse, plain cloth <sup>8</sup>	6/3	greater than 16 x 18	
328 An 51/76a	plain cloth made of very fine thread wrap- ping a <u>Spondylus</u> valve	14/10	12 x 6 or 10.5 x 9.5	HMN, p. 198 top, An 51/76
344 An 55/76	open weave cloth with a blue striped border, two selvages and terminating in loops	7/3	28 x 22	(see note 7)
357 An 56/76a	striped, open weave cloth with two selvages and ter- minating in loops	6.7/3	43 x 43 or 44 x 50	HMN, p. 203 top and bottom, An 56/76; <u>Archaeology</u> , p. 12 bottom
368 An 57/76a	open weave cloth containing vegetable remains; cloth mentioned only in inventory		30 x 24	



Fig. 1, body and sewing basket (seen in outline) enclosed in the first shroud (#269, An 39/76). The second shroud, already unwrapped, lies under the body.



Fig. 2, inside the first shroud, the body is seen dressed in a plain weave cotton textile (#269, no catalog number). The head is covered by an open weave cotton cloth (#316, An 43/76). The hands are wrapped in unspun cotton and tied with fine cords.