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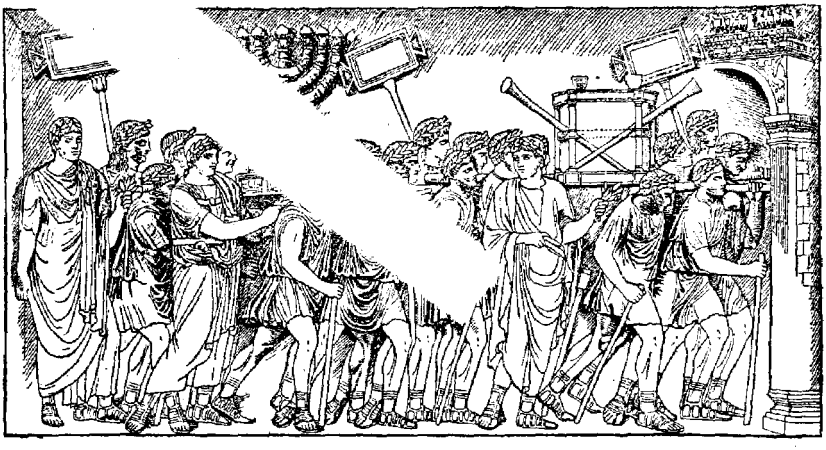
THE TEMPLE SPOILS REPRESENTED ON THE ARCH OF TITUS.

By the Rev. W. Shaw Caldecott, M.R.A.S.

Jerusalem fell A.D. 70. On the army's return to Rome a triumph was voted by the Senate to Vespasian and Titus. In the procession which followed, 700 Jewish captives walked, among whom was Simon, son of Gioras, the Jewish leader—then to die. In his *Jewish War* (Book vii, Chap. v), Josephus gives a graphic account of the sights and figures of that memorable day, so fateful to the H ace. In honour of the event which it commemorated, the



Panel from the Arch of Titus in Rome.

Emperor built *the Temple of Peace*, in which were deposited the golden vessels of the Temple brought from Jerusalem, and correctly recapitulated by Josephus.

Afterwards was built the most beautiful of the triumphal arches, that of Titus, at the head of the Sacred Way, which led from the southern gate of Rome to the Capitol and the Temple of Jupiter. Within this arch, known to almost every visitor to Rome, are two

interior panels, whose protected position has preserved them to our times in better condition than would otherwise have been possible. It is with one of these panels alone that we are now concerned. It is that in which are seen the low-reliefs of the Temple Spoils. Some twenty figures of Magistrates and Soldiers are seen carrying and accompanying the golden furniture of Herod's Temple, as they appeared on the day of the procession.[1] This panel has been a source of wonder and delight to myriads of spectators, none of whom have been of the Hebrew faith, as no Jew ever walks beneath the arch, or glances at the sad memorial of his nation's fall.

The panel is a large one, filling the whole length of the arch, and is some six or seven feet in height. The bas-reliefs are somewhat mutilated, as thousands of photographs have shewn, but they are said to be shewn in their perfect state in a drawing of Giuliano di Sangallo.

In a little volume published in 1904 the following footnote is printed :—

> "Edersheim has remarked that the representation of the Shewbread table on the arch of Titus is less in size than we should expect from its description. His cubit was one of 18 inches. It is to be hoped that some future visitor to Rome will test its dimensions by a cubit of 10·8 inches, and make public the result.[2]

Reading this note, the Rev. Dr. Walsh, of St. Clement's Church, in Rome, used his influence with Commendatore Boni to have exact measurements taken of the sculptures. This was found to be impossible to effect while the grime and dirt of eighteen centuries and a quarter obscured the real proportions and outlines of the figures. Signor Boni, Director of the excavations now being made in the Roman Forum, accordingly had the encrusted dust removed—a service for which many tourists to Rome will thank him. When this was done, exact measures were possible. These the Professor himself took. Their correctness is therefore indisputable, as no one stands higher in the modern archæology of Rome than does Boni.

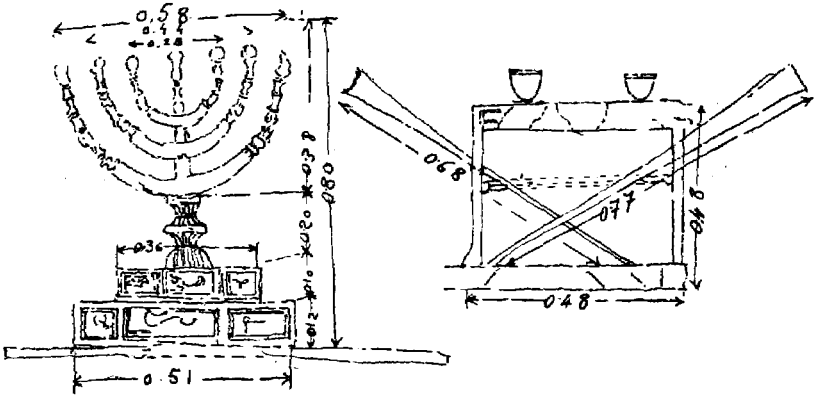
The measures are given in millimetres, each being nearly the

[1] On the heads of all these figures may still be seen the "crowns of laurel" which Josephus says all the victors wore on the day of the triumph.

[2] *The Tabernacle. Its History and Structure*, by the Rev. W. Shaw Caldecott (R.T.S.), p. 224.

25th part of an English inch. In addition to giving a transcript of these fourteen measurements, I annex a photographic representation of Signor Boni's drawing, with the distances which he has marked upon it.

This reproduced representation will, in every way, be satisfactory to the student, and will so far commend itself to him as to preclude serious discussion upon the basal facts which it contains, though further research and remeasurements may shew that slight amendments are necessary or permissible. It is obvious, as the Hebrew cubit, in all its parts, is exactly commensurate with the English inch and its decimals, that better and more certain results



Spoils of the Temple of Herod, as depicted in panel. (Drawn to scale by Signor Boni).

in the measuring of these *antiques* may be obtained by using *them*, than by the use of the modern millimetre. Some saving in the labour of translation would also be effected.

Coming now to the present writer's interpretation of these metrological data, we enter upon a stage of the enquiry of which it is hopeless to expect that the results will be unquestionably received—the more so as the ravages of time have defaced the sharp edges of all the sculptures and, in many cases, left but an indistinct representation of what has been.

The measurements shown in the photograph are, in the following table, arranged in order of size, and are, for convenience of comparison, described and translated into English inches.

SCALE.

40 inches to 100 C.M. or 1 metre (true value being 39″·37 = 100 C.M.).

(1.) CANDLESTICK.

	Metre.	Inches.	Approximate error (in excess).
Height of 2nd base	0·10	4·0	— 0·063 of an inch.
Height of 1st base	0·12	4·8	— 0·0756 ,,
Height of stem, to 1st branch ..	0·20	8·0	— 0·126 ,,
Width of inner branches	0·28	11·2	— 0·1764 ,,
Width of 2nd base	0·36	14·4	— 0·2268 ,,
Height of branches, from top of stem	0·38	15·2	— 0·2494 ,,
Width of middle branches	0·44	17·6	— 0·2772 ,,
Width of lower base	0·51	20·4	— 0·3213 ,,
Width of outer branches	0·58	23·2	— 0·3654 ,,
Height of candelabra	0·80	32·0	— 0·504 ,,

(2.) SHEW-BREAD TABLE.

	Metre.	Inches.	Approximate error (in excess).
Height	0·48	19·2	— 0·3024 of an inch.
Width	0·48	19·2	— 0·3024 ,,

(3.) SILVER TRUMPETS.

	Metre.	Inches.	Approximate error (in excess).
Length (shorter)	0·68	27·2	— 0·4274 of an inch.
Length (longer)	0·77	30·8	— 0·4851 ,,

In the P.E.F. *Quarterly Statement* for January, 1902, pp. 79–82, is a brief account of an interview with the Executive Committee of the Society, the late Sir Charles Wilson being in the chair. In that account occurs the following sentence:—"There were three cubits of the respective lengths of $\frac{9}{10}$, $\frac{12}{10}$, and $\frac{15}{10}$ of an English foot, the first of which was used exclusively for gold and gold-tapestry work,

the second for building purposes, and the third for measuring areas only."[1]

It will be apparent from this conclusion, expressed over four years ago, that the cubit by which the golden vessels of the Temple were thought to be constructed, and by which their representations are to be measured, is that of the small cubit of 10·8 inches, equal to nine-tenths of a foot.

This cubit, according to an article published in the *Journal of the Royal Asiatic Society*, April 1903, pp. 257–283, on the "Linear Measures of Babylonia," consisted of three palms or hand-breadths, each being of the conventionalized size of 3·6 inches. Among the peoples of the East this palm was divided into three sections, but among the Hebrews the palm was divided into quarters and made to correspond with the breadth of the four fingers[2] (Ezek. xl, 43, Exodus xxv, 25, I Kings vii, 26, Jeremiah lii, 21), the width of the palm being, in each case, the same. We thus arrive at a "fundamental" of nine-tenths of an inch, as being that which any Hebrew artist would use in making the sacred vessels of the sanctuary. In this way—Boni's figures being before us—we construct the following list of proportional measures as those by which the Temple gold- and silver-smiths worked.

1. 3-*Cubit Lengths.*—The sacred cubit being one of 10·8 inches, three such cubits give us a length of 32·4 inches. To this length, I am of opinion, the height of the Candelabra was made to conform. It was also the length of the two silver trumpets (Numb. x, 1). No measures of any of these objects are given in the Bible, and it will be noticed that each of them is, by Boni, given as a fraction less than is requisite in order to substantiate the measure of 32·4 inches. In explanation, it may be pointed out that the candelabra is imperfect at its upper ends, and may well have consisted of the other four-fifths of an inch which is requisite to the equation of 32″ – ·504, and 32·4 inches. Boni gives the present height of the candlestick as 80 centimetres, whereas 82 are requisite in order to effect its harmonization with the 3-cubit theory.[3] This slight

[1] This sentence (p. 82) needs correction so far as to include silver work as well as gold, in the fabrics measured by the short cubit. Brass work was measured by the medium cubit.

[2] Cp. *The Tabernacle*, pp. 148, 220.

[3] According to Josephus, each of the seven branches "had a lamp of brass on its top." This is in accordance with Ex. xxv, 37, and may have been included in the artist's measure of height.

deficiency is such as might have been anticipated in relics on which time and wear have done their work for so many centuries.

We come now to the consideration of the silver trumpets, in which, taken alone, a difference of nearly three inches is observable in their given lengths.

If, however, Boni's drawing be carefully examined, it will be seen that the trumpets are not carved at the same angle, and do not hold the same position with regard to their surroundings. The mouthpiece of each rests on a lower table or shelf, which is protected on all its sides by a wooden curtain or side. Within this curtain lie portions (hidden) of each trumpet, and of one a greater length is hidden than of the other. It is this more-deeply-hidden trumpet to which the shorter length of 68 centimetres is given, the other having a length of 77 centimetres. There is no reason why each of the *tubæ* here represented should not have been 82 c. long.

2. *The* 1, $1\frac{1}{2}$, *and* 2 *Cubit Lengths.*—These three measures are found in the candelabra, and in such a relation to each other as that their close connection cannot be doubted. These measures are used to determine the width at which the three pairs of branches were placed. The *inner* branches are placed at a single short cubit apart, the *middle* at a cubit and a half apart, the *outer* at two cubits apart, the requisite number of centimetres being $27\frac{1}{3}$, 41 and $52\frac{2}{3}$. These are given by Boni as 28, 44, and 58. In each case there is a slight excess in Boni's figures. This may be accounted for by the fact, shewn in his drawing, that Boni measured from the outer circumference or, at least, from centre-to-centre, whereas it would be in harmony with Hebrew methods to give the spaces free of the structure. They would thus be *interior* measures, and to this variation in the mode of calculation may be attributed the slight differences which appear.

3. *Size of the Shew-Bread Table.*—The table on which was placed "the bread of the Presence" in the Mosaic economy, is described in Exodus xxv, 23–30, and xxxvii, 10–16, a description which receives illumination from the sculptured representation, as we see that it had two levels, on the upper one of which were placed the twelve loaves of shew-bread, and on the lower one the dishes and spoons and bowls and flagons which were ordered to be placed upon it[1] (Ex. xxxvii, 16). The table itself was of diminutive size, as was

[1] Two golden cups are shewn in Boni's drawing. Ordinarily, and when in use, these cups stood upon the lower level.

imperative, when it was ordered to be overlaid with plates of gold. Two cubits was its length (Exodus xxv, 23), one cubit its breadth, and a cubit and a half its height.[1]

Professor Boni's measures for the height and width of the Table are the same, being 48 centimetres, or nearly 19 inches. The attempt to co-ordinate this measure with those already given, produces a length of a cubit and two-thirds, which yield eighteen inches. This does not agree either with Moses or with the scale of cubits herein adopted. Yet the figures are irrefragable, supporting one another as they do. Further light is requisite upon this point.

4. *Bases and Stem of Candlestick.*—Reverting to the golden Candelabra, there are several measures still unnoticed that call for attention. These are those of the bases and the stem or pedestal of the candelabra. It will be observed that the candlestick stood upon two bases, each of which had six sides. The Roman artist, in order to express this fact, shading being impossible, represented two of the three sides visible, in perspective, and as foreshortened. This is why the three panels in the foreground are not of the same size.

A six-sided figure, when viewed from opposite any one of its sides, will always have the same breadth. The width of the lower base is given by Boni as 51 centimetres. Now $52\frac{2}{3}$ c. are two cubits, and there is little doubt but that this was the original figure. Similarly, the width of the upper base is given at 36 centimetres, and the height of the branches, measured from the top of the stem, at 38 centimetres. I have little doubt but that each of these measures, before dilapidations set in, was 41 c.,[2] or a cubit and a half (= 16·2 inches).

Three smaller measures remain for examination. These are the heights of the bases and the distance between the bases and the first out-branchings.

It was artistically imperative that the thickness of the larger and lower base, or platform, should be something more than that of its smaller fellow above. A palm breadth was, therefore, given to the upper base—as was given to the castings of the brasen sea in

[1] It will not escape the reader's notice that these are the lateral measures of the branches of the golden candlestick. See above, p. 311.

[2] Of the three centimetres required here to make up the 41, two are those which, *supra*, are required to give the candlestick its height of three small cubits. The other one is to be deducted from the combined heights of the bases and the pedestal, which now total 42 c.

Solomon's Temple (1 Kings vii, 26), and to the castings of the pillars Jachin and Boaz (Jeremiah lii, 21). This was equivalent to four fingers, or 3·6 inches. An additional finger-breadth, of nine-tenths of an inch, was given to the height of the lower base. Nineteen centimetres, given by Boni as twenty, remain, as the space between the bases and the first outbranching, these being one-half the total elevation. This half-total is thus arrived at:—

	Inches.
Thickness of lower base, 12 c.	4·5
Thickness of upper base, 10 c.	3·6
Height of single pedestal, 19 c.	8·1
	16·2[1]

The remark of Josephus that "the construction of the candlestick was somewhat different from that in use amongst us," can refer only to its representation in stone, as the original was carried in the procession. His caveat is met by Gregorovius, who remarks that the fantastic figures carved upon it prove that it was not an exact likeness of that which came from Jerusalem. The Roman eagles referred to by him have now flaked away and are quite indistinguishable.

Conclusion.—At the time of the building of the Arch of Titus the golden vessels of the Sanctuary were in the *Temple of Peace*, and at the observation of the architect and the sculptor. The panels of the Arch were so designed as to afford full-sized reproductions of these objects. This involved that, if practicable, the human figures, crowded together in the bas-relief under discussion, should be of average-sized Romans. The work was, however, conditioned by the size of the panel, especially the height which could be given to it. Mr. Cecil Smith, Keeper of the Greek and Roman antiquities in the British Museum, has kindly hunted up the authorities on the subject, and writes that the total height of the panels is 2·04 metres, or 78¾ inches. The delineation therein, on the one side, is of that part of the procession in which the victors were carrying on poles, shoulder-high and resting on moveable platforms, the golden spoils

[1] It is not unnoticed that the same number of inches is here given to the bases as to the pedestal, while Boni gives to the former 22 c., and to the latter 20 c. It will, however, be found, I anticipate, that the bases are 4 and 5 fingers in thickness, and that the height of the clear pedestal is 9 fingers.

of the Temple. It was necessary that the upper portion of the panel should be reserved for the representation of the principal figures intended to be commemorated. These were the articles of furniture measured by Boni. Projecting far above the heads of the bearers, these golden embodiments of victory, themselves possibly gilded, did not allow of the full size being given to the human figures below them. No cast from this unique record of other days exists in our National Museum or in any other place, known to me as accessible to the student, so as to allow of fresh measurements being taken. The figures are, of course, not all of the same height. Some are in a stooping position, but the result of Mr. Smith's reading is that he "estimates the figures as nearly 1·50 metres high." This is within a small fraction of 5 feet, and leaves some 18 inches above them as the clear space for the carving of the principal objects of the commemoration. Roman soldiers were not unfamiliar objects in the streets of Rome in the first century A.D., and it was not, therefore, necessary to do more than indicate their presence, though, had the general plan of the arch allowed of it, they would doubtless have been shown life-size. That they are not done so, is not, in the circumstances of the case, in my opinion any valid reason for rejecting the idea that the candlestick and the table, with its belongings, were exactly copied, as to their size and shape, from the originals then in the Temple specially built to receive them.

With one exception, all Boni's measures are thus seen to bear a resemblance to those which would be used were the objects of the representation given in natural size, and were the artificer's cubit one of 10·8 inches. As to that single exception I should like to make a hypothetical suggestion. It is this: As we have seen, the sacred table was ordered to have a length of 2 cubits, and a height of 1½ cubits. It was very narrow, a dimension with which the sculptor could not deal. If the Jewish priests, for some reason of convenience in placing the bread upon the table, decided to increase its height, this could only be done by retaining its old dimensions and harmonising them so as to make the height and the length the same. By adding the old dimensions (21·6 + 16·2), and then by halving the total, 37·8, they would arrive at the exact figures, 18·9 inches (19·2 − ·3204), which is reported by Boni as being the height and width of the present representation. This, I believe, is what was done; thus accounting for the alteration in

two of its dimensions as given in Exodus, and bringing the measures of the Shewbread table into line with Boni's other measurements—the key to all of which is the new sacred cubit of 10·8 inches.

NOTE ON MR. CALDECOTT'S PAPER.

HOWEVER interesting as a detailed examination of the representation of the holy vessels from Jerusalem, borne in the triumph of Titus, few will be disposed to accept the dimensions of the sculpture as the exact equivalents of those of the objects themselves.

It would certainly be a most exceptional incident in the history of decorative sculpture to find minute care taken to preserve such dimensions exactly. That the forms are approximately correct is most probable; that the scale is larger for the objects borne than for the bearers is likely enough, the figures being considerably under life size, and the sculptor desiring to give prominence to the objects. But Mr. Caldecott should have mentioned that Josephus expressly says that the candlestick carried in the triumphal procession of Titus was quite different from that formerly used in the Temple (*B.J.*, VII, 5, § 5). I quote Whiston's translation: "The candlestick "also, that was made of gold, though *its construction were now changed* "*from that which we made use of:* for its middle shaft was fixed upon "a basis, and the small branches were produced out of it to a great "length, having the likeness of a trident in their position, and had "every one a socket made of brass for a lamp at the tops of them. . . . . and the last of all the spoils was carried the Law of the "Jews."

See Whiston's note also, which remarks that "the Law of the "Pentateuch does not appear on that arch at all, though Josephus, "an eye-witness, assures us that it was carried in this procession." Josephus seems to infer that the original candlestick was not of the "trident" form at all.

It would be very rash to assume more than approximate likeness to the originals, and perhaps approximate proportion between the several objects.

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