

by an examination of the hieroglyphs which he cites in support of that claim (see his "Geog. Dict.," p. 992). To make his point, he arbitrarily translates the quite general determinative of the three upright reeds into the special word *sochet* (*sekhet*) "a field," and then adds the proposition. In fact, while he does not find the phrase "field of Zoan" in the inscriptions, Brugsch does find there the phrase "field of Zaru," or "field of Zor" (see "Geog. Dict.," p. 993), as clearly applicable to the region of the Eastern Delta.

This whole inquiry gives another illustration of the value of Biblical geography as an aid to Biblical exegesis.

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THE SILOAM INSCRIPTION.

FROM the labours of German scholars, and especially Dr. Guthe and Professor A. H. Sayce, we infer that the text of the inscription is now as fairly translated and settled as it ever will be. My present note has reference only to the statement in the fifth line, and its use in aiding us in the settlement of the value of the Jewish cubit in British inches. Professor Sayce, quoting from Dr. Guthe's article in the "Zeitschrift der Deutschen," &c., xxxvi, 3, 4, gives the following translation of the fifth line of the text, as now settled:—

"And there flowed the waters *from the spring to the pool* for a thousand two hundred cubits."

All former translations of the text have given us 1,000 cubits, but the latest are unanimous in making the number 1,200 cubits. I propose in this short note to again call attention to the value of the Jewish cubit as tested by this revised text of the inscription. It will afford us a good opportunity of arriving at some general result.

THEORETICAL VALUE OF THE CUBIT.

In former communications I have advocated a cubit of $\sqrt{\pi} \times 10 = 17.724$ inches. But I have been making extensive researches in relation to this question, and have arrived at definite results. The cubit-rod of the ancient world, as seen embodied in the nilometer at Elephantine, in the measurements of the Great Pyramid, in the many cubit-rods, and in measurements given in papyri and elsewhere, was the well-known radius of the circle expressed in seconds of arc taken as inches, and reduced

$\frac{1}{10,000}$ part = 20.62648 inches, or the same factor as we use in our estimate of the radius of the earth's orbit to obtain the sun's distance

$$= \frac{206264.8}{10,000} = 20.62648 \text{ inches.}$$

This radius was the ancient measuring

rod of the universe, and, with a movable decimal point, became the common measuring rod of the ancient world in all matters pertaining to civil, scientific, and commercial affairs. But this cubit-rod consisted of two spans and a palm, or seven palms.

The Jews used a similar cubit-rod, with a similar division of the scale into spans, palms, and digits. But the Jewish cubit-rod was estimated as a cubit and a handbreadth; for the cubit consisted of two spans = 6 palms = 24 digits. So that the Jewish cubit-rod was one palm or handbreadth *more* than a cubit. The cubit is thus described :

“These are the measures of the altar, . . . its border on its margin about was *one span*.”—Ezek. xliii, 13.

“The border about it was *half a cubit*.”—Verse 17.

The border is “*one span*” in verse 13, and “*half a cubit*” in verse 17; therefore, 1 span = half a cubit. The Jewish cubit was 2 spans, but the cubit-rod was 1 cubit + 1 handbreadth = 2 spans + 1 palm. For the same prophet Ezekiel says :—

“A cubit [cubit-rule or rod] is a cubit and a handbreadth.”—Ezek. xliii, 13.

“In the man’s hand a measuring reed of 6 cubits [as measured by the cubit-rule or rod] by the cubit and a handbreadth.”—Ezek. xl, 5.

If the cubit-rod is 7 palms and the Jewish cubit 6 palms, then the cubit can only be six-sevenths of the length of the rod = 17·6798 British inches. And this will be the value of the cubit used by the excavators of this Siloam tunnel. Let us apply this value to the 1,200 cubits of the inscription, and thereby obtain a test of the entire length of the tunnel “from the spring to the pool.” Taking different values of a cubit we have the following results :—

1,200 × 25	inches =	2,500	feet
1,200 × 21	”	= 2,100	”
1,200 × 18	”	= 1,800	”
1,200 × 17·68	”	= 1,768	”
1,200 × 16	”	= 1,600	”

THE TEST.

We must not overlook the fact plainly stated in the fifth line of the inscription, that the 1,200 cubits include the entire length of the tunnel “from the spring to the pool.” The cross passage of the Virgin’s Pool = 50·8 feet must be included in this length, for the measurement is evidently taken from the spring itself. Indeed, may it not be true, that the Siloam tunnel originally reached to the spring itself, and that the cross passage of 50·8 feet, leading to the passage above the Virgin’s

Fount, is a more modern excavation? This entire length from the masonry of the spring to the Siloam Pool is about 1,758 feet.

Captain Warren	1,708·0 + 50·8 = 1,758·8
Captain Conder	1,706·8 + 50·8 = 1,757·6
Dr. Robinson = 1,758

Captain Conder says: "Robinson's measurement includes in his 1,758 feet that portion of the cross passage which leads from the Siloam tunnel to the *back* of the Virgin's Pool, and which measures 50·8 feet by the chain." (*Quarterly Statement*, April, 1882, p. 122.) The above three measurements are taken from the same paragraph. But they all begin with the "back" of the masonry of the Virgin's Spring, some feet distant from the actual spring itself. The excavator who made the inscription probably never saw any masonry around the spring, neither should we allow it to interfere with our measurement "from the spring to the pool." The spring is fully 10 feet from the back masonry, where the above measurements began. The true length would therefore be about 1,768 feet "from spring to pool." This is the exact length given by the value of our cubit:

$$1,200 \times 17\cdot6798 \text{ inches} = 1,767\cdot98 \text{ feet.}$$

The accuracy of any value given to a cubit is always best seen when the number of cubits are large, for trifling errors are then multiplied into impossible values.

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Strathroy, Ontario, Canada,
November, 1883.

NOTE ON KADESH BARNEA.

In the *Quarterly Statement* for July there is an extract from a contribution to the "Sunday School Times" by Dr. H. Clay Trumbull, in which he refers to the inability of the recent Expedition of the Palestine Exploration Society to visit 'Ayn Qadees ('Ain Kadeis), the site identified by the Rev. John Rolands as Kadesh Barnea. Perhaps it may be desirable that I should offer a short explanation on this matter in anticipation of the much fuller account which will appear in the narrative of the Expedition shortly to be published.

Dr. Trumbull is correct in saying that the discovery of Kadesh Barnea was one of the objects to be kept in view by our party, but the question was, where was it to be found? It would have been manifestly impossible for us to go into the Badiet et Tih on a roving expedition in search of this or any other site, unless we had had unlimited time and means, both of men and money, at our disposal. Some of us thought that perhaps the