A "FLAW" in God's Word? 1 Kings 7:23 – The Molten Sea – Floyd Nolen Jones, Th.D., Ph.D.

> And he (Hiram of Tyre, 1 Ki. 7:13) made a molten sea, ten cubits from the one brim to the other: it was round all about, and his height was five cubits: and a line of thirty cubits did compass it round about.

Problem: how can a line 30 cubits (cu) long [c.45 feet] go around a 10 cubit diameter [d = c.15 feet] circular tank when the perimeter of a circle is Pi (π) x d. To so do, π would have to be 3.0, as "d" is 10 cubits and 10 x 3.0 = 30 cubits – problem solved. However, π is 3.14159, not 3.0 & that times 10 is 31.4159 cu: a 30 cubit rope cannot encircle it! Is not this undeniably an error in God's Word? It is not.
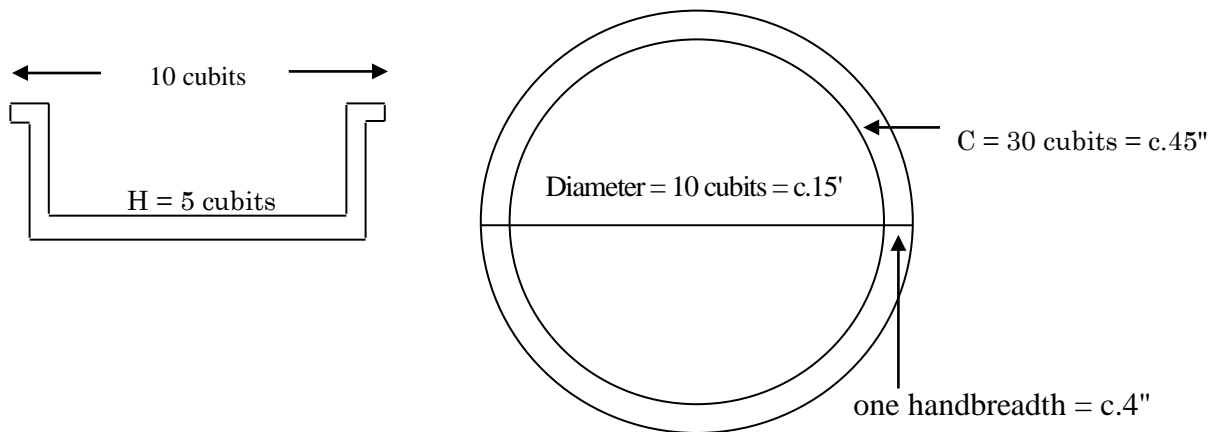
A typical mistake in reading the Word of God is that decisions are reached before checking *the whole counsel* of God's Word. The proper approach to any scriptural paradox (an apparent contradiction) is:

> Since I know "God watches over His Word to perform it" (Jer. 1:12) and as the Holy Scriptures record "The Words of the LORD are pure words...you shall keep them O LORD, you shall preserve them from this generation forever" (Psa. 12:6-7) – how can two seemingly contradictory statements both be true – for they must be. This is called "Faith in God and His Word."

The above paradox is readily solved by simply continuing to read through verse 7:26. It tells us that the Molten Sea (i.e., the Laver) was a handbreadth in thickness and that its rim was like the rim of a cup – like a lily blossom (cp. 2 Chr. 4:5). The verse also adds that it "contained" 2,000 baths of water.

This data holds the key to the problem. First, the lily blossom curls to the outside, and second – it reveals that the brim was a handbreadth thick. Furthermore, the last portion of verse 26 shows us that the primary objective in listing these pertinent facts was to inform the reader as to the **volume** of water the priests actually put into the laver.

Now we are able to discern whether the data is speaking of the inner diameter or the outer – for we *know* the Scripture cannot be wrong (John 10:35b). We therefore understand by comparing verse 23 with 26, that the ten cubits span from brim to brim is an exterior or outside dimension.

Thus, ten cubits is the *outer* rim diameter. To obtain the volume or to do circumference verification, we must obviously subtract two (2) handbreadths from the ten cubits in order to acquire the diameter of the *inner* circle (refer to diagram above).

Had the Lord not very meticulously added verse 26 no such perception would be possible. However, as He knew the value of pi (π), He realized that verse 23 could create doubt even in some believing hearts – those in whom faith is not yet firm that His Word is absolutely reliable. In love, God graciously included the data contained in verse 26 to quell those fears.

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As mathematically demonstrated on page one, no 30 cubit line could go around a circle with a diameter of 10 cubits due to the 3.14159 value of π – but then, surely God must know that much. Now we are drawn to see that the 30 cubit value must apply to either the inner or outer circumference. It cannot be both, for the "sea" was a handbreadth thick.

It manifestly refers to the inner circumference for, once again, the reference is directed to the *volume* of water to which it is filled. The reading both permits and suggests this conclusion.

Over the years, archaeological research has established that there were three (3) different cubits used in Old Testament days. There was one of 3 handbreadths width used in working with gold, one of 4 handbreadths which was utilized in the erection of buildings etc., and one of 5 hands that was employed in measuring land. A further limitation imposed upon us is that a handbreadth is an inexact distance. Several values for the handbreadth have been handed down to us. They have been given as ranging from 3.6 to 4 inches on the low end and upward to 5 inches.

For our purpose, we choose the most common values where one cubit = 18 inches and a handbreadth = 4 inches, but it should be obvious that no dogmatic mathematical assignment can be made for these two units of measurement. The uncertainty; however, does not rest with God's Word – it rests in our inability to convert the data with absolute certainty into exact English equivalents.

Hence: 10 cubits = c.15 feet – the diameter "d"
          30 cubits = c.45 feet – the inner circumference "C"
          π = 3.14159

Where: $C = π \times d$
          $C = 3.14159 \times [(15' \times 12") – (2 \times 4") = 180" – 8" = 172"]$

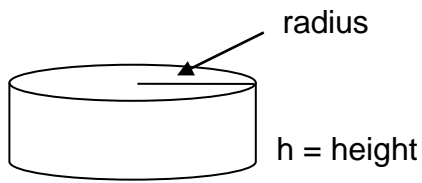 $C = (3.14159 \times 172") \div 12 = \underline{45.029'}$

We thus obtain an English measurement which is only *29 one thousands of a foot* from the known actual circumference of 30 cubits [or its approximate equivalent, which is 30 x 18 ÷ 12 = 45 feet]. Surely this is more than "close enough" to make the point, especially when we remember the uncertainty factor involving the English equivalents of the Biblical terms "cubit" and "handbreadth". We can be completely confident that not even the slightest discrepancy exists in the actual standards that were used.

A contradiction is also claimed between 1 Ki. 7:26 and 2 Chr. 4:5 (emphasis mine in verses below).

> 1 Ki. 7:26 KJB And it was an hand breadth thick, and the brim thereof was wrought like the brim of a cup, with flowers of lilies: **it *contained* two thousand baths.**

> 2 Chr. 4:5 KJB And the thickness of it was an handbreadth, and the brim of it like the work of the brim of a cup, with flowers of lilies; and **it *received and held* three thousand baths.**

In the first instance, the "Molten Sea" (the laver) seems to have a capacity of 2,000 baths of water whereas the Chronicler recorded a volume of 3,000 baths. Is this a case of an "indisputable error" or "scribal blunder" of which we hear so much these days?

If one utilizes the eighth grade formula for deriving the volume of a cylinder: $V = \pi \times r^2 \times h$ (π x radius squared x height) – after some effort, he will find the calculation to show the actual *maximum* volume of the "Sea" was 3,000 baths as 2 Chr. 4:5 states. However, as the purpose for the "Sea" was for a priest to wash himself in (2 Chronicles 4:6), the Biblically prescribed water level was only that of 2,000 baths. The reasons for this are most obvious. The water level would otherwise be so high (5 cubits = 5 x 18" = 90" ÷ 12 = 7.5 feet) as to:

(1) Overflow – no one fills their tub to the brim.

(2) Go well over the man's head.

It would be most difficult to bathe in 7.5 to 10.4 feet of water (depending on the value of the cubit and hand-breadth used – however, consideration of the math will indicate both were small or else the Laver [Sea] would have been too deep).

The prudent reader will carefully mark the boldfaced wording in the above two Scriptures. They are distinctively different. They reflect the connotation which we have given. The First Kings passage tells us how much water the laver actually *contained* – how much was kept in it (i.e., to what level it was filled). The Chronicles verse reveals its true *maximum volume*. It was capable of *receiving* (that is, it could actually *hold*) 3,000 baths. Moral: simply trust God's Word.

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