

# POSSIBLE WEIGHT OF THE PLATES OF THE BOOK OF MORMON

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It is being said by some that the Plates of the Book of Mormon, as Joseph Smith described them would have weighed more than 600 pounds. Therefore, there were no plates.

This information is erroneous and is based on a common error in mathematics. A cubic foot of gold weighs 1,200 pounds. One who does not know mathematics may believe that a 7 inch cube would weigh half of the weight of a 12 inch cube. Actually it requires eight (8) 6 inch cubes to equal in volume one 12 inch cube. A 6 inch cube weighs 150 pounds, not 600!

Joseph estimated the plates to be about 6"x6"x8", or 1/3 larger than a 6 inch cube, for a total weight of 200 pounds for a solid block of gold of that size.

But the plates were not a solid block of metal, and no one who saw and handled them described them as "gold". Joseph described them in his letter to Mr. Wentworth as having the "appearance of gold". The eight witnesses whose testimony is in each Book of Mormon described them the same way. Nephi said that he had gold, silver and copper available in abundance when he made the plates of "ore".

The Scientific American of June, 1984, describes the metallurgy of the artifacts of the Pre-Columbian era in Central and South America as having the appearance of gold when they were actually made of gold, silver and copper or only gold and copper. Some of the artifacts described contained as

little as 12% gold with the rest copper. Others contained as much as 40% gold, 48% silver and 12% copper. This "tumbaga gold" appeared to be solid gold. Even the edges of very thin sheets were covered with gold.

By calculating the weights of the metals possibly used to make the plates, we discover that a solid block of metal 6"x6"x8" would weigh between 98.9 and 129.7 pounds. Since they were engraved sheets, however, their weight would have been much less. How much less, we can only estimate. Joseph's brother William, who hefted the plates but did not see them, estimated that they weighed about 60 pounds. Certainly they were not too heavy for a strong young man to handle!

#### REFERENCES:

1. Wentworth Letter - Times and Season, Vol. 3, Page 707 quoted in Davis, The Story of the Church, Page 55.
2. Scientific American, June 1984, Pages 56-63. (Pre-Columbian metallurgy)
3. I Nephi 5:217-218. (Plates made of ore)
4. Saint's Herald, Vol. 31, Pages 643-644. (William Smith's sermon)