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Title A Mesoamerican System of Weights and Measures? Did the ancient peoples of Mesoamerica use a system of weights and scales in measuring goods and their values?

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Abstract Ancient Mesoamericans used some systems of weights and measures; items in the market, though, were usually sold by volume. The Mesoamerican weights and measures may coincide with the weights and measures described in Alma 11 of the Book of Mormon, but more research is necessary in order to make conclusive claims.

DID THE ANCIENT PEOPLES OF MESOAMERICA USE A SYSTEM OF WEIGHTS AND SCALES IN MEASURING GOODS & THEIR VALUES?

Alma's experience with the antagonist Zeezrom in the city of Ammonihah as reported in Alma 11 describes a system of standard weights and volumes in use among the Nephites in their commerce. We would expect that in Mesoamerica, quite certainly the area where the history of the Nephites was played out, there might be evidence of standards. Such would include measures of volume for grains plus weights of precious metals of values equivalent to the amounts of grain.

When the Spanish invaders arrived, they reported that in the markets everything was sold by volume.¹ For example, the Aztecs used a wooden box, called *quauhchia-quiuitl*, to measure corn and other dry goods; this box was divided until the smallest unit was a twelfth part of the whole. Graded sizes of jars served to measure liquid. They also had special cups to measure out gold tribute payments to the Spanish in units roughly equivalent to our ounces. Maya groups in southern Mesoamerica also relied primarily on volume measures (for example, the "armload" and "the fistful").² From the area around Kaminaljuyu on the outskirts of Guatemala City (the "land of Nephi" to some) archaeologists have, in fact, found bowls manufactured to a standard pattern and of gradually reducing sizes; these may represent socially established measures of volume belonging to the time period—the first and second centuries B.C.—when the Lamanites are reported by the Book of Mormon to be living in Nephi.³

Further, there is all but conclusive evidence that weights were not used anywhere in Mesoamerica at the time of the Spanish conquest, nor were scales known.⁴ The archaeological and ethnological literature has credited Andean peoples and other South Americans with the possession of scales.⁵ Fragmentary information hints at the possibility—no more—that scales were known at some points in Mesoamerica in an earlier era even though they apparently were not continued in use for Spanish eyewitnesses to observe.⁶ (Many other cultural ideas and objects are known to have been lost since ancient times.)⁷

It has been suggested by some Latter-day Saints that sets of small metal objects used currently in weighing goods for sale in Guatemalan marketplaces are descended culturally from a system of weighing assumed to have been used in pre-Spanish, and indeed in Book of Mormon, times.⁸ Objective evidence for this claim is lacking. Indeed, historically the use of scales and weights in Guatemala appears to have been brought in by Europeans perhaps no more than 90 years ago.⁹ All the materials and terminology involved in these devices are of Spanish origin.

Yet the studies of Mesoamerican standards for measurement that have been done so far have been extremely limited. The topic deserves in-depth research whereupon greater clarity may be attained.

13. The writings of several prophets that are preserved on the brass plates are not found in the Old Testament: Zenos, Zenock, Neum, and Ezias (see 1 Nephi 19:10; Helaman 8:19–20).
14. Important articles discussing the exodus typology in the Book of Mormon include George S. Tate, “The Typology of the Exodus Pattern in the Book of Mormon,” in *Literature of Belief: Sacred Scripture and Religious Experience*, ed. Neal E. Lambert (Provo, Utah: BYU Religious Studies Center, 1981), 245–62; S. Kent Brown, “The Exodus Pattern in the Book of Mormon,” in *From Jerusalem to Zarahemla*, 75–98.
15. Although the biblical text implies that Moses died, the Book of Mormon makes it clear that he was actually translated (see Alma 45:19).
16. Some scholars have even called him an “anti-Moses.” See, for example, Luis A. Schokel, “Jeremías como anti-Moisés,” in *De la Torah au Messie, Mélanges Henri Cazelles*, ed. M. Carrez, J. Doré, and P. Grelot (Paris: Desclée, 1981), 245–54.
17. Oliver Cowdery’s report is found in the *Messenger and Advocate* 1/5 (1835): 78–80; 1/7 (1935): 108–12; and 1/10 (1835): 156–59. A convenient list and important discussion of these passages can be found in Kent P. Jackson, “The Appearance of Moroni to Joseph Smith (JS—H 1:27–49),” in *Studies in Scripture: Volume Two: The Pearl of Great Price*, ed. Robert L. Millet and Kent P. Jackson (Salt Lake City: Randall Book, 1985), 339–66.
18. See *TPJS*, 14–15.

Pondering the Word

Dennis and Sandra Packard

- * This article has been adapted by the authors from Dennis J. and Sandra Packard, “Pondering the Scriptures,” in *Feasting upon the Word* (Salt Lake City: Deseret Book, 1981).
1. Jeffrey R. Holland, “Daddy, Donna, and Nephi,” *Ensign*, September 1976, 7.
 2. Gordon B. Hinckley, “The Light Within You,” *Ensign*, May 1995, 99.
 3. Hugh W. Nibley, “Educating the Saints—a Brigham Young Mosaic,” *BYU Studies* 11/1 (1970): 61.
 4. *TPJS*, 276.
 5. *JD*, 7:185.
 6. Spencer W. Kimball, “How Rare a Possession—the Scriptures!” *Ensign*, September 1976, 4.

Weighting and Measuring in the Worlds of the Book of Mormon

John W. Welch

1. I express appreciation to Kent Brown, Claire Foley, and the FARMS editorial staff for their contributions to this article. This article was prepared at the request of the editors to report and develop past and current research by several people on this subject, mentioned in the notes below.
2. The collapse of the rule of law undercut the divinely established base of Nephite civilization. Abinadi plainly prophesied the Lord’s threat to “utterly destroy” the Nephites because “they have hardened their hearts against [the Lord’s] words;

they have repented not of their evil doings; therefore, I will visit them . . . in my fierce anger” (Mosiah 1:8, 1; compare Mormon 1:19). See also the similar lawlessness in Helaman chapters 4, 5, and 7, and in Mormon chapters 1 and 2. Old Testament prophets also condemned the misuse of weights and balances in the marketplace (Hosea 12:7; Amos 8:5) just prior to the destruction of the Northern Kingdom.

3. Keith W. Whitelam, *The Just King: Monarchical Judicial Authority in Ancient Israel* (Sheffield: JSOT Press, 1979), 37; Hans J. Boecker, *Law and the Administration of Justice in the Old Testament and Ancient East* (Minneapolis: Augsburg Publishing House, 1980), 40–49.
4. See Ruth 4:1–2; Harold B. Clark, *Biblical Law* (Portland, Ore.: Binford & Mort, 1943), 260 n.19, “Ordinarily the judges were not paid.” Haim H. Cohn, “Bribery,” *Encyclopedia Judaica* (Jerusalem: Keter, 1974), 4:1357. “[Judges] are urged to be impartial, and not susceptible to bribes (2 Chronicles 19:7) and reminded that judicial services should be given free (Bek. 29a).”
5. Cohn, “Bribery,” 1368, “Other talmudic jurists carried the rule against bribery to extremes by refusing to sit in judgment over any person who had shown them the slightest courtesy, such as helping them to alight from a boat (Ket. 105a).”
6. See Morris Silver, *Economic Structures of Antiquity* (Westport, Conn.: Greenwood, 1995), 97–99.
7. See discussion below.
8. This set of laws appears in English in James B. Pritchard, ed., *Ancient Near Eastern Texts Relating to the Old Testament*, 3rd ed. (Princeton: Princeton University Press, 1969), 161–63, and Martha T. Roth, *Law Collections from Mesopotamia and Asia Minor* (Atlanta, Ga.: Scholars Press, 1995), 57–70. See further John W. Welch, “The Laws of Eshnunna and Nephite Economics,” in *Pressing Forward with the Book of Mormon* (Provo, Utah: FARMS, 1999), 147–49.
9. Harry A. Hoffner Jr., *The Law of the Hittites* (Leiden: Brill, 1997), 10, “The silver equivalent is calculated on the basis of the probable rate of exchange of 4 *PARISU* of barley for [½ shekel] of silver in section 183 and a 30-day Hittite month.”
10. As in most ancient cultures, the metallic pieces of silver and gold probably changed hands rarely in commercial exchanges. Rather, it was the goods themselves that people traded. See Marvin A. Powell Jr., “Ancient Mesopotamian Weight Metrology: Methods, Problems and Perspectives,” in *Studies in Honor of Tom B. Jones*, ed. Marvin A. Powell Jr. and Ronald H. Sack (Neukirchen: Kevelaer, 1979), 86–87.
11. Although economies in the New World must have rested on some sort of standards, only three types of artifacts have survived: (1) weights that are multiples of a single unit, (2) elements of balance scales (so far known only in Andean South America), and (3) a measure of length—“cubit”—that is 20.7 inches. For the weights, see Erlend Nordenskiöld, *The Origin of the Indian Civilization of South America* (Göteborg: Pehrsson, 1933), 278. For elements of balance scales, see *ibid.*, and Walter Hough, “Balances of the Peruvians and Mexicans,” *Science* 21 (1893): 30. For the “cubit” in ancient America, see “An Old-World Cubit in America,” *Nature* 111 (1923): 647. These are cited in John L. Sorenson and Martin H. Raish, *Pre-Columbian Contact with the Americas across the Oceans: An Annotated Bibliography* (Provo, Utah: FARMS, 1996), 29, 192, 478.
12. Bartel L. van der Waerden, *Science Awakening* (New York: Oxford University Press, 1961), 49. Gillings, *Mathematics in the Time of the Pharaohs*, 234, “We tend to forget that [the Egyptians] were a people who had no plus, minus, multiplication, or division signs, no equals or square-root signs, no zero and no decimal point, no coinage, no indices, and no means of writing even the common fraction p/q; in fact, nothing even approaching a mathematical notation.”
13. See Herbert W. Smyth, *Greek Grammar* (Cambridge: Harvard University Press, 1963), 106; translations mine.
14. See Munro S. Edmonson, *The Book of Counsel: The Popol Vuh of the Quiché Maya of Guatemala* (New Orleans: Tulane University, 1971), 6. See also the reference to balances in Hough, “Balances of the Peruvians and Mexicans,” 30 (cited in Sorenson and Raish, *Pre-Columbian Contact*, 478). I thank John Sorenson for this information.
15. Marvin A. Powell, “Weights and Measures,” *Anchor Bible Dictionary*, ed. David Noel Freedman et al. (New York: Doubleday, 1992), 6:898.
16. See the discussion of Egyptian fractions, as they are pictured in the Horus-eye, in Alan Gardiner, *Egyptian Grammar*, 3rd Edition (London: Oxford University Press, 1957), 197–99 (§266).
17. Gillings, *Mathematics in the Time of the Pharaohs*, 210.
18. Alan H. Gardiner, *Egyptian Grammar* (Oxford: Griffith Institute, Ashmolean Museum, 1976), 197.
19. Powell, “Weights and Measures,” 6:897 (Sumerian MA.NA, Akkadian/Assyrian/Babylonian *manum*); s.v. “*manû*,” in Miguel Civil et al., *The Assyrian Dictionary of the Oriental Institute of the University of Chicago* (Chicago: Oriental Institute, 1977), 10:1:219–21; Dever, “Weights and Measures,” in *Harper’s Bible Dictionary*, 1:127. Compare Akkadian *limnum*, *limnanni*, *limmanum*, etc., in Wolfram von Soden, *Akkadisches Handwörterbuch* (Wiesbaden: Harrassowitz, 1965), 604, as among the uses of *manum*.
20. John W. Betlyon, “Coinage,” *Anchor Bible Dictionary*, 1:1076.
21. Compare Dever, “Weights and Measures,” 1128–29; Powell, “Weights and Measures,” 6:906–7.
22. I thank Robert F. Smith for this table and analysis, which is based on many years of research contributions relevant to this subject.
23. Åke Sjöberg, editor, *The Sumerian Dictionary of the University Museum of the University of Pennsylvania* (Philadelphia: University Museum, 1984), 2:200. See also

Robert F. Smith, “Weights and Measures in the Time of Mosiah II” (FARMS, 1983), 6.

24. The Printer’s Manuscript has *senum*, *ezrum*, and *shilum* in Alma 11, as well as *sheum* in Mosiah 9:9. These may well be Akkadian carryovers from the Jaredites.
25. Gardiner, *Egyptian Grammar*, 192–94 (§§ 260–61); Antonio Loprieno, *Ancient Egyptian: A Linguistic Introduction* (Cambridge: Cambridge University Press, 1995), 60, 71–72.
26. Thomas O. Lambdin, *Introduction to Sahidic Coptic* (Macon, Ga.: Mercer University Press, 1983), 59, 270.
27. Hildegard Levy, “On Some Old Assyrian Cereal Names,” *Journal of the American Oriental Society*, 76/4 (1956): 201–4; s.v. “se’u” in *Assyrian Dictionary*, 17:2:345–50.
28. Robert F. Smith, who first drew attention to this connection, suggested “a Mulekite and possibly, therefore, Jaredite provenance.” But the case is not obvious. See “Some ‘Neologisms’ from the Mormon Canon,” *Conference on the Language of the Mormons 1973* (Provo, Utah: BYU Language Research Center, 1973), 64–67, esp. 66 and note 38.
29. For other possible relationships between Nephite weights and meaningful terms known from other ancient cultures, see Smith, “Nephite Weights and Measures.”
30. See John W. Betlyon, “Coinage,” in *Anchor Bible Dictionary*, 1:1079; A. D. H. Bivar, “Coins,” *The Oxford Encyclopedia of Archaeology in the Near East*, ed. Eric M. Meyers et al. (New York: Oxford University Press, 1997), 2:41–42; Marvin A. Powell Jr. also notes the use of coinlike silver cubes in the Neo-Babylonian era (sixth–fifth centuries B.C.) in “Ancient Mesopotamian Weight Metrology,” 87.
31. Powell, “Weights and Measures,” 6:905; Barry Kemp, *Ancient Egypt: Anatomy of a Civilization* (London: Routledge, 1989), 237, 244–55; J. D. Muhly, “Cyprus,” in *Oxford Encyclopedia of Archaeology in the Near East*, 2:92–93.
32. Powell, “Ancient Mesopotamian Weight Metrology,” 72; and “Weights and Measures,” 6:906. The Bible also mentions stone weights. For instance, the Hebrew phrase underlying “diverse weights, a great and a small” (Deuteronomy 25:13) could be translated literally as “stones, a large stone and a small.”
33. Betlyon, “Coinage,” 1:1076–89.

Did the ancient peoples of Mesoamerica use a system of weights and scales in measuring goods and their values?

1. See, for example, Francisco Guerra, “Weights and Measures in Pre-Columbian America,” *Journal of the History of Medicine and Allied Sciences* 15 (1960): 342–44; Daniel G. Brinton, “The Lineal Measures of the Semi-Civilized Nations of Mexico and Central America,” *Proceedings of the American Philosophical Society* 22: 194–207, 1885; and Fernando Cortés, *His Five Letters of Relation to the Emperor Charles V*, ed. and trans. Francis A. MacNutt (Glorieta, N.Mex.: Rio Grande, 1977), 1:259.
2. See Guerra, “Weights and Measures”; Munro S. Edmonson, *The Book of Counsel: The Popol Vuh of the Quiché Maya of Guatemala* (New Orleans: Tulane

- University Middle American Research Institute, 1971), 5–6.
3. See Marion Popenoe de Hatch, *Kaminaljuyú/San Jorge: Evidencia Arqueológica de la Actividad Económica en el Valle de Guatemala, 300 a.C. a 300 d.C.* (Guatemala: Universidad del Valle de Guatemala, 1997), 100.
 4. See Guerra, "Weights and Measures," 342; Brinton, "Lineal Measures," 194–96; William T. Brigham, *Guatemala: The Land of the Quetzal* (New York: Scribner's Sons, 1887), 425.
 5. See Stephen C. Jett, "Pre-Columbian Transoceanic Contacts," in *Ancient Native Americans*, ed. Jesse D. Jennings (San Francisco: Freeman, 1978), 631; Walter Hough, "Balances of the Peruvians and Mexicans," *Science* 21/518 (6 January 1893): 30.
 6. For example, see Hough, "Balances," 30; Erland Nordenskiöld, "Origin of the Indian Civilization in South America," in *The American Aborigines: Their Origin and Antiquity: A Collection of Papers by Ten Authors*, ed. and comp. Diamond Jenness (Toronto: University of Toronto Press, 1933), 278.
 7. See "Lost Arts," in *Reexploring the Book of Mormon*, ed. John W. Welch (Salt Lake City: Deseret Book and FARMS, 1992), 101–4.
 8. See Joseph L. Allen, *Exploring the Lands of the Book of Mormon* (Orem, Utah: S. A. Publishers, 1989), 175; Carolyn Lee, "Weights and Measures," *Book of Mormon Archaeological Digest* 1/4 (1998): 13.
 9. Felix W. McBryde, *Cultural and Historical Geography of Southwest Guatemala* (Washington D.C.: Smithsonian Institution, 1945), 84; McBryde, *Sololá: A Guatemalan Town and Cakchiquel Market-Center* (New Orleans: Tulane University Middle American Research Institute, 1933), 124.
- the Saints* (Salt Lake City: Deseret News, 1907–1912), 2:3–29.
6. The bibliographical record of this work can be confusing both as to title and volume numbers. When it appeared in 1895, the work carried the title, in the singular, *A New Witness for God*. Treating Joseph Smith, this work in two volumes later became volume one. Between 1903 and 1906, a series of chapters appeared as manuals 7, 8, and 9 of the Young Men's Mutual Improvement Association. In 1909 these were brought together and published as *New Witnesses for God. II. The Book of Mormon*, volumes 2 and 3, changing the word *witness* to its plural form. Volume 1 was republished in 1911, while volumes 2 and 3 were brought together and published as a single volume in 1920, 1926, and 1927.
 7. *New Witnesses*, 3:130–31.
 8. See *New Witnesses*, 2:246, 281.
 9. See *New Witnesses*, 2:235–95.
 10. See Preston Nibley, comp., *The Witnesses of the Book of Mormon* (Salt Lake City: Stevens and Wallis, 1946); Richard L. Anderson, *Investigating the Book of Mormon Witnesses* (Salt Lake City: Deseret Book, 1981); Scott Faulring, "The Return of Oliver Cowdery" (FARMS, 1997).
 11. See *New Witnesses*, 2:347.
 12. See *Ibid.*, 2:352–54.
 13. *Ibid.*, 2:354–55.
 14. See *Ibid.*, 2:417–500.
 15. *Ibid.*, 2:370–71.
 16. See *Ibid.*, 3:40–49.
 17. See *Ibid.*, 3:49–66.
 18. *Ibid.*, 3:90–91.
 19. *Ibid.*, 3:91–92.
 20. See *Ibid.*, 3:134–39.
 21. *Ibid.*, 3:411–25; see also Roberts "The Manner of Translating the Book of Mormon," in *Defense of the Faith and the Saints*, 1:253–311; Stephen D. Ricks, "Joseph Smith's Means and Methods of Translating the Book of Mormon" (FARMS, 1984); John W. Welch and Tim Rathbone, "The Translation of the Book of Mormon: Basic Historical Information" (FARMS, 1986); Royal Skousen, "Translating the Book of Mormon: Evidence from the Original Manuscript" (FARMS, 1997).
 22. See *New Witnesses*, 3:442–45.
 23. *Ibid.*, 3:429–30.
 24. *Ibid.*, 3:438–39. "Or," Roberts adds in a footnote, "it may be that the changes occurred to the inspired mind of the Prophet when reading the English version, without referring to the Nephite plates. In this connection it is to be remembered that the Prophet, 1831–1833, was engaged in such an inspired 'revision' of the Old and New Testament" (p. 439).
 25. Sperry's published answer to the Isaiah problem in *Improvement Era* 42, September–October 1939, was refined and repeated in *Our Book of Mormon*. See the special Sidney B. Sperry issue of *Journal of Book of Mormon Studies* 4/1 (1995).
 26. See Richard Dilworth Rust, *Feasting on the Word: The Literary Testimony of the Book of Mormon* (Salt Lake City: Deseret Book and FARMS, 1997); John W. Welch, "Chiasmus in the Book of Mormon," *BYU Studies* 10/1 (1969): 69–84; Donald W. Parry, *The Book of Mormon Text Reformatted according to Parallelistic Patterns* (Provo, Utah: FARMS, 1992). Many related contributions are available through FARMS.
 27. See Paul Jones, *The Bible and the Book of Mormon: Some Suggestive Points from Modern Bible Study* (Logan, Utah, 191–).
 28. B. H. Roberts, "Higher Criticism and the Book of Mormon," *Improvement Era* 14, June 1911, 665–77; July 1911, 774–86.
 29. See *New Witnesses*, 3:449–60.
 30. Samuel R. Driver, *An Introduction to the Literature of the Old Testament* (New York: Scribners, 1891; 9th ed. 1913).
 31. See Josephus, *Antiquities*, 11.1.1.
 32. See note 25; Avraham Gileadi, *The Book of Isaiah: A New Translation with Interpretive Keys from the Book of Mormon* (Salt Lake City: Deseret Book, 1988); a comprehensive treatment of the Isaiah problem may be found in Donald W. Parry and John W. Welch, eds., *Isaiah in the Book of Mormon* (Provo, Utah: FARMS, 1998).
 33. B. H. Roberts, *A Comprehensive History of the Church of Jesus Christ of Latter-day Saints: Century I*, 6 vols. (Salt Lake City: Church Deseret News Press, 1930); B. H. Roberts, *The Truth, The Way, The Life* (Provo, Utah: BYU Studies, 1994; rev. ed. 1996). Another version of this second work was published the same year by Signature Books.
 34. See B. H. Roberts, *Studies of the Book of Mormon*, ed. Brigham D. Madsen (Urbana: University of Illinois Press, 1985).
 35. A quick summary of the questions: There is not sufficient time for all American Indians to be descendants of the Lamanites, and the many languages required a much longer period of change; the "scimeter," assumed to be the Book of Mormon's cimeter, did not originate before the rise of Islam; and steel, the horse, and silk, all mentioned in the Book of Mormon, are anachronisms. The false assumptions are two: that all Native Americans descend from the Lamanites; and that the terms *scimeter*, *steel*, *horse*, and *silk* are unambiguous. The untenability of this last assumption is thoughtfully demonstrated in J. H. Elliott, *The Old World and the New, 1492–1650* (Cambridge: Cambridge University Press, 1970). The most thorough discussion of the whole issue is John L. Sorenson, *An Ancient American Setting for the Book of Mormon* (Salt Lake City: Deseret Book and FARMS, 1985). Relevant to Roberts's continued devotion to the Book of Mormon are John W. Welch, "B. H. Roberts, Seeker After Truth," *Ensign*, March 1986, 56–62, reprinted in *A Sure Foundation: Answers to Difficult Gospel Questions* (Salt Lake City: Deseret Book, 1988), 60–74; Welch, "Finding Answers to B. H. Roberts's Questions" (FARMS, 1985); Welch, review of B. H. Roberts' *Studies of the Book of Mormon* in *Pacific Historical Review* 55 (November 1986): 619–23 and *Deseret Church News* December 15 1985; Welch, "Brigham Henry Roberts," in *American National Biography* (Cary, N.C.: Oxford University Press, 1999), 18:595–97; Roberts, *Book of Mormon Essays 1900–1911* (Provo, Utah: FARMS reprints); Truman G. Madsen, comp., *His Final Decade: Statements about the Book of Mormon* (1924–33)/ B. H. Roberts (Provo, Utah: FARMS, 1990).
 36. See *New Witnesses*, 3:534–43.
 37. See John L. Sorenson, *Animals in the Book of Mormon: An Annotated Bibliography* (Provo, Utah: FARMS, 1992).
 38. See Hugh W. Nibley, *Lehi in the Desert* (Salt Lake City: Bookcraft, 1952), now included in *Lehi in the Desert, The World of the Jaredites, There Were Jaredites* (Salt Lake City: Deseret Book and FARMS, 1988).
 39. The exhaustive, analytical study on this is John L. Sorenson, "The Book of Mormon as a Mesoamerican Record," in *Book of Mormon Authorship Revisited: The Evidence for Ancient Origins*, ed. Noel B. Reynolds (Provo, Utah: FARMS, 1997), 391–521.
 40. See Gordon R. Willey and Jeremy A. Sabloff, *A History of American Archaeology*, 2nd ed. (San Francisco: Freeman, 1980), 35–65, 83–129.
 41. Any responsible discussion of the question must rest on a firm grasp of John L. Sorenson, *The Geography of Book of Mormon Events: A Source Book* (Provo, Utah: FARMS, 1992).
 42. *New Witnesses*, 2:200.
 43. *Ibid.*, 3:501.
 44. For the most recent assessment of this key document, see Frederick G. Williams III, "Did Lehi Land in Chile? An Assessment of the Frederick G. Williams Statement" (FARMS, 1988).
 45. *New Witnesses*, 3:502–3.
 46. "It is frequently the case that a proper setting forth of a subject makes its truth self-evident; and all other evidence becomes of secondary importance. Especially is this the case when setting forth the Book of Mormon for the world's acceptance; in which matter we have the right to expect, and the assurance in the book itself that we shall receive, the co-operation of divine agencies to confirm to the souls of men the truth of the Nephite record; that as that record was written in the first instance by divine commandment, by the spirit of prophecy and of revelation; and, as it was preserved by angelic guardianship, and at last brought forth by revelation, and translated by what men regard as miraculous means, so it is provided in God's providences . . . that its truth shall be attested to individuals by the operations of the Holy Spirit upon the human mind. . . . This must ever be the chief source of evidence for the truth of the Book of Mormon. All other evidence is secondary to this, the primary and infallible. No arrangement of evidence, however skillfully ordered; no argument, however adroitly made, can ever take its place; for this witness of the Holy Spirit to the soul of man for the truth of the Nephite volume of scripture, is God's evidence to the truth. . . . To be known, the truth must be stated and the clearer and more complete the statement is, the better opportunity will the Holy Spirit have for testifying to the souls of men that the work is true. . . . [However], I would not have it thought that the evidence and argument presented in [here] are unimportant, much less unnecessary. Secondary evidences in support of truth, like secondary causes in natural phenomena, may be of first-rate importance, and
- The Numerical Elegance of the Nephite System
1. For a comparison of 1–2–4–7, 1–2–4–8, and 1–2–5–10 systems, see Richard P. Smith, "The Nephite Monetary System," *Improvement Era* 57, May 1954, 316–17. On binary systems generally, see Phyllis and Philip Morrison, "Wonders," *Scientific American* (February 1996): 130–31.
- B. H. Roberts and Book of Mormon Scholarship Early Twentieth Century: Age of Transition Davis Bitton
1. See Truman G. Madsen, *Defender of the Faith: The B. H. Roberts Story* (Salt Lake City: Bookcraft, 1980), 92.
 2. This series was published later as a book, *Corianton: A Nephite Story* (1902). Richard Cracroft says this work was turned into a play and performed on Broadway. See Cracroft, "Seeking 'the Good, the Pure, the Elevating,'" *Ensign*, June 1981, 57–62; July 1981, 56–61.
 3. See *Improvement Era* 3, June 1900, 570–78; July 1900, 653–57; August 1900, 760–66; September 1900, 835–43.
 4. Madsen, *Defender of the Faith*, 128.
 5. See B. H. Roberts, *Defense of the Faith and*