A COMPARISON OF THE NEPHITE MONETARY SYSTEM WITH THE EGYPTIAN SYSTEM OF MEASURING GRAIN. By Paul Richard Jesclard, a graduate teaching assistant in biblical Hebrew and a candidate for the Master of Arts degree in classical languages at Brigham Young University. A paper read at the Twenty-first Annual Symposium on the Archaeology of the Scriptures, held at BYU on October 16, 1971.

In this paper I wish to discuss one of the more subtle aspects of the Book of Mormon: namely, Nephite currency. I say subtle because money is one of those things which everyone talks about, but which very few really understand. This, in fact, is the case with the monetary system described within our sacred volume of American scripture. While some have sought to explain it, no one has ever gone beyond an internal analysis of the system itself. In addition, no one to my knowledge has ever sought to discover a connection with a similar system in the ancient Near East. Nevertheless, it is my opinion that such a connection not only can be found, but actually has been found with the Egyptian system of measuring grain.

EGYPTIAN LEGEND

But what has measuring grain to do with Nephite money? To answer this question it will be necessary to relate an ancient Egyptian legend:

"Osiris was once an earthly king who brought many useful gifts to man. His brother, Set, jealous of his accomplishments, lured Osiris into a chest. This chest was thrown into the Nile whose currents floated it to the sea. At last the chest was beached at Byblos where through some occurrence it became enclosed in a tree. When the King of Byblos built a palace he used the tree for one of its pillars. The imprisoned Osiris was thus nearly hidden from the world.

"Isis, however, was tireless in her search for her husband. She wandered here and there until at last she found the chest. She obtained the position of nurse to the King's children in order to be near [the chest]. She managed to free the chest from the pillar but her weeping combined with her terrible powers were too much for the royal children and two of them died through contact with her, proving the difficulty of integrating gods and mortals.

"Isis bore Osiris' corpse to Egypt, where in the safety of the delta swamps, her son Horus, the Hawk-headed royal god of Egypt, was born. But Set in his vengefulness found Osiris' body and cut it into fourteen pieces which he scattered over the land. The tormented Isis, forced to wander with her son, located each piece and tenderly buried it where she found it.

"... Isis, assisted by Horus, her sister Nephthys, Thoth god of wisdom, and Anubis god of embalming, put the pieces of Osiris together in the underworld. Here Osiris was resurrected by magic and became Lord of the Dead. Both Osiris and Isis urged Horus to avenge them."

In the ensuing fight Set managed to destroy one of Horus' eyes. This wound was later healed by either Hathor, Isis, or (according to Gardiner) Thoth. In healing the injury the god (in this case Thoth) used his powers of magic—as gods often do—to restore a full eye from the 63/64 of it that remained after the battle. Furthermore, the missing 1/64 was not only supplied in some mystical manner, but it was hinted by the Egyptians that if one could discover the secret of restoring the missing portion he would have the secret of the resurrection.
The Egyptians, capitalizing on this legend, used the hieroglyphic sign of the wedjat-eye (i.e., the "sound" uninjured eye of Horus) to show fractional amounts when measuring grain (see Fig. 1). The Egyptians were not ignoramuses, of course. They knew perfectly well that the fractional amounts only added up to 63/64, but allowed it to stand as 64/64 for superstitious reasons—reasons with which Lehi and his sons would surely have been familiar if they were, as some Mormon scholars have suggested, merchants. Indeed, they would have used the system every time they went into Egypt to do business and in turn would have taught it to their descendants in the New World.

**NEPHITE SYSTEM**

The only place in the Book of Mormon where the monetary system is explained is Alma 11:3-19. Several charts have been created by members of the LDS Church concerning this system. While this is certainly a step in the right direction, they vary somewhat because the text is rather ambiguous in its wording concerning the arrangement and values of the currency. However, I believe that the correct version may be found in Fig. 2. The reason for this conclusion will be explained shortly.

One may discover, upon close comparison of the two systems, that the Nephite silver standard will fit perfectly into the Egyptian method (or vice versa; see Fig. 3). Note that the sum of all the fractions (one onti) is only 63/64, leaving 1/64 (a leah) to be supplied gratuitously.

Unfortunately, the Book of Mormon does not fully explain the Nephite gold standard. Consequently, I have not yet discovered sufficient correlation between it and the wedjat-eye system to establish a firm connection. Further research in this area is required. (It is interesting that the bribe mentioned later in the same chapter in Alma is in silver onties.) This situation, combined with the difficulties of engraving on metal plates, may account for Mormon's neglect to discuss the gold standard more fully.

Concerning this bribe it might be added that the judges, who stirred the people to riot so that they might be employed in law suits, received their pay according to the number of days they actually worked. For every onti they took in, they received an extra leah for nothing. This tends to confirm the theory that the Nephites continued the Egyptian exchange system in the New World, even to the extent of providing the extra 1/64 gratis.

The Nephites may also have believed that the missing 1/64 was supplied by a divine power and that it held the secret of the resurrection. The Book of Mormon, of course, does not say that this is the case in so many words; nevertheless, it is fairly predictable that a people cut off from their homeland would strive to maintain as many customs from that area as possible. Of course, being "Jehovahites" and Christians, they could not believe that Thoth or some other Egyptian god or goddess supplied the missing portion, but they could believe that Christ did. A quaint custom indeed.

In support of this reasoning the Book of Mormon tells how the Lamanites, through social contacts with Nephite deserters, learned about the system of monetary values and used it to cheat their enemies. How was this done? Answer: the wicked Lamanites, under the influence of Amulon, soonexcelled in mercantilism, and though they played fairly with their kindred (i.e., they allowed the 1/64 to remain as a free gift), they played unfairly with their enemies the Nephites (i.e., they gave them measure for measure). No wonder the Nephites screamed foul: the Lamanites were not only denying them the free portion; they were, in effect, denying that the righteous Nephites knew anything about the resurrection through Christ!

**EVIDENCE OF PHILOLOGY**

All these points, though well taken, are not positive proof, however. The only real proof is that of philology; if the theory will not withstand this test, it is of little value. Fortunately, this inquiry has resulted in some unusual findings. For example, onti is a good Egyptian word meaning, among other things, "small amount" or "short of an amount." This fits perfectly into the theory presented in this paper. Onto can also mean "a small weight of a scale" or "myrrh." Whether this has any connection with the monetary system of the Nephites is not known at this time.

Another example of the linguistic link is the monetary value called a senum. It is actually a combination of an Egyptian word, sen, with a proposed Nephite case ending. The Egyptian portion means "one half" or "doubling." This would also tend to fit into the Nephite method, because a senum is doubled each time to make the next highest amount. Moreover, sen can also mean "to cause to eat (grain)" or "(for birds) to take nourishment." This would also support the view that the Nephites knew and used the Egyptian wedjat-eye with some alterations of their own, since a senum can be exchanged for precious metals as well as for grain. The ending of the word may merely be a grammatical device used when changing certain Egyptian words into the Nephite tongue. Notice should be taken of the fact that at least two other Nephite values contain this element: shiblum and shiblon.

In contrast, the word limnah is not Egyptian, but Hebrew. It means "to count or weigh." As was pre-
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Fig. 1. The Wedjat-eye as it was broken down into fractional amounts for the purpose of measuring grain in ancient Egypt.

NEPHITE MONETARY SYSTEM

SILVER STANDARD

1 LEAH = 1/4 SHIBLUM
1 SHIBLUM = 1/4 SHIBLON
1 SHIBLON = 1/4 SENUM
1 SENUM = 1 MEASURE OF GRAIN
2 SENUM = 1 AMNOR
4 SENUM = 1 EZROM
1 ONTI = AS GREAT AS THEM ALL (COMBINED)

GOLD STANDARD

2 SENINE = 1 SEON
2 SEON = 1 SHUM
1 LIMNAH = THE VALUE OF THEM ALL
1 ANTION = ?

RATE OF EXCHANGE

1 SENUM OF SILVER = 1 SENINE = 1 MEASURE OF GRAIN
3 SHIBLON OF SILVER = 1 ANTION OF GOLD

Fig. 2. A possible reconstruction of the Nephite monetary system.

Fig. 3. The relationship between the Nephite silver standard and the Egyptian system of measuring grain. All charts are based on the Book of Mormon (Alma 11:13-19) and Sir Alan Gardiner’s Egyptian Grammar, p. 197.
viciously mentioned, if Lehi and his sons were merchants, they would have been familiar with various Near Eastern names for items of commercial value.

At this time no other Book of Mormon terms have been fully researched, though I expect to devote some time to this during the coming months. In addition, I would encourage others to do the same, as this is an area of great importance to Latter-day Saints.

"NEPHITE COINS"

My final remarks will be in regard to some purported Nephite coins found in the Americas. In the first place it should be remembered that nowhere in the Book of Mormon is the word "coin" used. It is, therefore, a modern assumption on the part of some individuals that coinage was in use among the Nephites; actually, this may not have been the case at all. Rather, they may have employed money similar to that used by the Egyptians; that is, ring money, since coins were not yet generally in use during Lehi’s days at Jerusalem. Nevertheless, he may have come across some early examples of coins during his merchant travels and thus given this knowledge to his descendants. However, despite this apparent discrepancy, such “Nephite coins” as have been found are as follows:

The first example is a purported Nephite senice found by an explorer along the Colorado River around the year 1860. The coin was reported to be made of copper and engraved with hieroglyphic and Hebrew writing. But a search of the LDS Church Historian’s Office at Salt Lake City has failed to produce it, and until it is found no opinion as to its authenticity can be given.

It should be emphasized, however, that merely because this artifact is made of copper instead of gold, as the text requires (vv. 3, 5, 7), is no reason to suppose that it is not genuine. After all, the abridger, Mormon, continually changes verb tenses when discussing the monetary values. Could it be that they had changed by his time from what they had been in the days of Alma? If so, then it could be theorized that copper had replaced gold in the making of some, if not all, of the units of Nephite currency.

The second and third examples are also alleged to be Phoenician coins. One was found near Grantsville, Utah, and the other near Lake Titicaca in Bolivia. Upon examination of a photograph of the coin from Grantsville, it was discovered that it dates to the Second Jewish Revolt of AD 132-135. The inscription reads: “Second year of the Freedom of Israel.”

Since neither coin was found by a reliable party, such as an archaeological expedition, their authenticity must also be questioned. Even if they are genuine, they do not automatically prove a relationship between the Egyptians and the Nephites or any other ancient people. Nevertheless, these examples are given to clear up any misunderstandings that students of the Book of Mormon might have regarding these discoveries and the use of coins among the Nephites. This, like so many other topics in the sacred text, has yet to be explored fully.

CONCLUSIONS

In conclusion, I should like to emphasize that this paper has sought to explain a connection between the Nephite monetary system, as detailed in the Book of Mormon, Alma 11:3-19, and the Egyptian wedjet-eye system of measuring grain. In particular, it has focused upon the silver standard, not by choice but by necessity. The descendants of Lehi probably derived most, if not all, of their monetary system from the ancient Near East and altered it to some extent to suit themselves. While the Nephites may have had coins, it is more likely that they used currency similar to Egyptian ring money. Further study is required by Book of Mormon scholars to verify the hypotheses presented in this paper, especially by comparison of the claims of the text with archaeological findings in both the Old and New Worlds.

ACKNOWLEDGMENT: I should like to thank Drs. Hugh Nibley, Ross T. Christensen, and Paul R. Cheesman for aiding me in some of the more difficult areas of this study. Nevertheless, I alone am responsible for its contents. Also, I should like to thank the Symposium Committee for inviting me to participate.

NOTES

3. Loc. cit.
5. Loc. cit.
6. E. A. Wallis Budge, Osiris and the Resurrection (London: Phillip Lee Warner, 1911), pp. 84ff. It is clear from the texts that the only way to be resurrected was to fill the wedjet-eye. This was supplied by Thoth (who, by the way, represented the moon god; that is, the other eye) during the judgment scene, in exactly the same way that he had filled the eye of Osiris. Robert Smith has recently called to my attention that the
theory of Gardiner in regard to the filling of the eye by Thoth is now considered invalid in some circles. But those who criticize Gardiner must know that Thoth (representing the left eye, which breaks down in exactly the same way as the right eye) magically gave 1/64 of his own eye to the candidate for resurrection. Thus he performed the same function for the Egyptians that Christ does for the Christians. That is, by his sacrifice man was resurrected.

8. Ibid., p. 197.
19. The letters m and n frequently change places in the Semitic languages.
21. *Deseret News*, X, p. 321 (Salt Lake City, December 12, 1860). The coin is also purported to have been mentioned in the issue of December 19, 1860, but a search of the Church Historian’s Office in Salt Lake City failed to produce the article on the date indicated.
22. It would indeed be amazing if the coin could be read after so long a time, copper being subject to corrosion.
24. See A. Reifenberg, *Ancient Jewish Coins* (Jerusalem, 1947), pp. 60, plate XII (fig. 164) for a photograph of the reverse side of a similar coin which was all this writer had available to him for identification. The latter coin probably dates from AD 133 since it is inscribed as being of the second year after the capture (?) of Jerusalem. (Dr. Cyrus H. Gordon has recently discussed a number of Jewish and Roman coins dating to the same period, found in the southeastern United States. See his *Before Columbus*, pp. 175-187. Ed.)

134.1 REPORT FROM THE HOLY LAND. By John A. Tvedtanes, member of the SEHA Advisory Committee and graduate student at the Hebrew University. Following last year’s BYU Jerusalem Semester Abroad, which included a course in archaeological field methods (Newsletter, 129.3, 132.4), archaeology seems to have become a regular part of the program.

This year, a course in the archaeology of the Holy Land has been added to the curriculum for both semesters. It includes a guest lecture by an Israeli archaeologist. (Professor Yohanan Aharoni, director of the Tel Aviv University Institute of Archaeology, has previously spoken to BYU students on two occasions.) Also included are half-day visits to the Israel and Rockefeller Museums and field trips to various archaeological sites, notably Hazor, Megiddo, Caesarea, Samaria, Jericho, Masada, and Arad.

Already BYU students have had some interesting experiences in excavation. Participants in the 1973 winter-semester program excavated for two days at the western and southern walls of the Temple Compound in Jerusalem. Here they cleared a Herodian pool and began clearing what may have been the outer wall of the city in Herod’s day, around the time of Christ.

Other archaeologists working in the nearby Jewish Quarter of the Old City have recently uncovered a portion of the western wall of the city from Hezekiah’s time. It had long been conjectured that there might be such a wall enclosing the Pool of Siloam, created by Hezekiah in connection with his famous tunnel leading from the Spring of Gihon. This has now been substantiated. (Cf. Newsletter, 119.0, p. 3; 119.1; 119.3.)

Perhaps the most exciting discovery of the 1973 season comes from Beer Sheba, where a large sacrificial altar was discovered. The altar has four horns at the corners, as prescribed by the law of Moses, and is evidence that, like Arad, Beer Sheba anciently had an Israelite temple.

At this writing, preparations are being made for a dig by the fall-semester students of BYU. Also, a walking tour of Mt. Ophel, the site of David’s city, is being added to the usual field trips. It will include visits to the Jebusite wall of c.1000 BC, the Israelite wall of c.500 BC, houses destroyed by Nebuchadnezzar in 586 BC, the post-exilic wall of Jerusalem, the tombs of the kings of Judah, the Siloam Tower (Luke 13:4), the Jebusite tunnel and shaft, Solomon’s water system, and Hezekiah’s tunnel.

134.2 “RACES OF MAN” OFFERED FOR SALE. About 150 copies of a volume by M. Wells Jakeman, BYU professor of archaeology and anthropology and general editor of the SEHA, have been presented by the author to the Society for sale to its members.

*The Races of Man*, printed in 1957, is the title of a textbook prepared by Dr. Jakeman for his class of the same name. The sub-title is “Readings in Physical
Anthropology and Ethnology, with Special Attention to the Problem of the Racial Classification of the Ancient Peoples of the Bible and the American Indians, according Especially to the Evidence of Archaeology (Skeletal Remains and Ancient Art Representations)." The book is an anthology of selections from outstanding authorities on human race. Its special purpose is to elucidate the races involved in both biblical and Book of Mormon history.

The Races of Man contains 231 pages, is bound in paper, and measures 8 1/2 by 11 inches. It contains no illustrations.

The price, including postage, is $2.00 per copy to members of the SEHA or $3.00 per copy to other persons. Orders should be sent to the Society office at: 140 MSRB, Brigham Young University, Provo, Utah 84602.

134.3 COMPILES LIST OF GREEK AND COPTIC ABBREVIATIONS. Paul Richard Jesclard, SEHA member and graduate student in Latin at BYU, has donated 25 copies of a paper by himself to be placed on the "free past publications" list of the Society.

"A Short List of Abbreviations from Early Greek and Coptic Christian Texts, Compiled from Various Sources" (8 pp., 1973) contains a five-page list written almost entirely in those ancient languages. "It by no means claims to be complete," the author explains, "but it will aid the beginner in getting over the hump when he first launches into real manuscripts."

Society members may obtain free copies by writing to: SEHA, 140 MSRB, Brigham Young University, Provo, Utah 84602.

Mr. Jesclard graduated from BYU with the BA degree in history in 1972. He is the author of a paper on the Nephite monetary system published in the present issue of the Newsletter and Proceedings (see above, 134.0).

134.4 OLMEC SPECIALIST TO HIGHLIGHT SYMPOSIUM PROGRAM. By Bruce D. Louthan. Plans for the forthcoming Twenty-third Annual Symposium on the Archaeology of the Scriptures and Allied Fields are now completed with Michael D. Coe, prominent specialist on the Olmec civilization of ancient Mesoamerica (see Newsletter, 133.0), scheduled to be the guest speaker.

Eight other papers have also been selected by the Symposium Committee from among the abstracts submitted. As previously announced, Dr. Ellis T. Rasmussen, BYU professor of ancient scriptures, is general chairman for this year's event and will conduct the program, while Dr. Sidney B. Sperry, professor emeritus of Old Testament languages and literature will serve as honorary chairman (see Newsletter, 133.3, 133.4).

This year's meeting, co-sponsored as usual by the SEHA and the BYU Department of Anthropology and Archaeology, will be held on Saturday, October 20, in the Madsen Recital Hall of the Harris Fine Arts Center on the BYU campus, beginning at 9:00 a.m. Society members and their partners will be admitted free of charge.

GUEST OF HONOR

As noted above, the highlight of the Symposium will be the guest address of Dr. Michael D. Coe, associate professor of anthropology and former chairman of that department at Yale University. A well-known authority on ancient Mesoamerican civilizations, Dr. Coe also serves as an advisor to the Robert Woods Bliss Collection of Pre-Columbian Art at Dumbarton Oaks, a museum in Washington, DC. He will report on A NEW MAYA CODEX. The recently discovered Grolier Codex deals with the apparent cycle of the planet Venus and its influence on human affairs and dates to the early thirteenth century AD. It is one of the only four Maya codices known to be still in existence. (Cf. Newsletter, 126.3.)

Dr. Coe received his AB degree in 1950 and his PhD in anthropology in 1959, both from Harvard University. He served as an assistant professor at the University of Tennessee from 1958 to 1960, after which he moved to Yale. Though perhaps most widely known for his Olmec studies, the featured speaker has participated in archaeological excavations in British Honduras, Guatemala, Costa Rica, and Tennessee, as well as Mexico, and has done much research on certain early simple cultures of the Archaic era.

Dr. Coe is a fellow of the Royal Anthropological Society of London, the American Anthropological Association, and the American Association for the Advancement of Science, as well as a member of the Society for American Archaeology. Besides contributing to various professional journals and producing several scholarly volumes, he has also written some excellent non-technical introductions to areas of Mesoamerican civilization including Mexico (1962), The Maya (1966), and America’s First Civilization (1968; on the Olmecs).

Though not a Latter-day Saint, Dr. Coe declares himself to be open-minded regarding views of transoceanic crossing to explain the rise of early high civilization in the New World.

OTHER PARTICIPANTS

The other eight speakers at the Symposium and their contributions are listed below.

William James Adams, Jr., former BYU instructor in Semitic languages, and Larry LaMar Adams, research analyst and consultant for the BYU Office of Institutional Research, will discuss USING ANCIENT IN-
SCRIPTIONS TO DATE BIBLICAL PASSAGES. With the aid of a computer the two Adamsses (not related) seek to date the writing of various biblical books by comparison with archaeologically-recovered Hebrew inscriptions.

Bruce T. Verhaaren, a senior majoring in archaeology at BYU, in his paper THE CONQUEST OF 'AI, will deal with some problems of an apparent discrepancy between the biblical and archaeological records. He notes how this results in various interpretations and explores the possible implications for the validity of an archaeological test of the historicity of the Scriptures.

Samuel E. Shepley, an undergraduate BYU student in archaeology, will treat CROMLECHS IN THE SCRIPTURES AND ARCHAEOLOGY. He will outline the significance of such ancient circles of stones in scripture and the connection of the scriptural references to archaeological circles such as Stonehenge, England, and will offer some interpretations of interest to Latter-day Saints.

Dr. John L. Sorenson, professor of sociology at BYU, will examine THE BOOK OF MORMON AS A CODEX. He will compare that document's original form and thematic and cultural content with the Mesoamerican screen books in order to better understand its nature. The value of an additional codex to scholarly research is suggested.

Bruce W. Warren, BYU assistant professor of anthropology and archaeology, will approach SOME PROBLEMS IN THE INTERPRETATION OF THE "JAREDITE" ACCOUNT. The key issue of dating the Jaredite migration from Mesopotamia is discussed, using both the early and late dates for the Tower of Babel. Various possible geographical and historical reconstructions are evaluated in the light of data from Mesoamerican sources independent of the Book of Ether.

R. A. Jairazbhoy, of Northwood, Middlesex, England, author of books on early cultural relations between India and the Near East, will delineate SOME EGYPTIAN-LIKE ELEMENTS IN THE ANCIENT AMERICAN CIVILIZATIONS. Egyptian migrants are traced to the New World in a “solar quest,” and the evidence of their presence and purpose here is adduced with emphasis on the Chavin remains of Peru.

Marilyn Malone, a graduate student in archaeology at BYU, will analyze MESOAMERICAN TEMPLES: SYMBOLISM AND RITUAL. The paper will be a progress report of research funded by a Hayes Archaeological Scholarship (Newsletter, 133.5). Evidence from architectural details and ritual equipment recovered archaeologically, as well as accounts in the Chronicles and ethnographic descriptions of Mesoamerican rituals, is marshalled in an attempt to define the purpose and function of the ancient temples.

Bruce D. Louthan, BYU graduate student in archaeology and also a Hayes Scholar, will tender his preliminary findings in AN APPROACH TO THE COMPARATIVE STUDY OF ANCIENT MESOAMERICAN AND ANCIENT NEAR EASTERN CERAMICS. A basic rationale for the study is offered along with the general characteristics of the respective ceramic complexes of key areas of Late Preclassic Mesoamerica and Middle Iron Age Palestine. Preliminary results are given, along with a tentative interpretation which seeks to provide increased understanding of the Book of Mormon.

Five papers will be presented in the morning, the last being Dr. Coe's. This will be followed by a luncheon at 357 Wilkinson Center, after which the guest speaker will entertain informal questions. The afternoon session will begin at 1:30 p.m. and will include four papers. Afterward, the film ANCIENT AMERICA SPEAKS, produced by the BYU Institute of Book of Mormon Studies and the BYU Motion Picture Studio, will be shown.

SOCIETY BUSINESS

Immediately following the Symposium, a brief but important business meeting of the SEHA will be conducted. The main item of business is to elect the Society's Board of Trustees for the coming year. All members are invited to attend, with special urging to Research Patrons, who have voting rights.

134.5 SOURCE OMITTED. The credit line has inadvertently omitted from the caption underneath two photographs in the last previous issue of the Newsletter and Proceedings.

“Courtesy of the Art Museum, Princeton University,” should have appeared beneath the pictures of two ceramic figurines of the Olmec civilization appearing on page 10 of issue No. 133. The illustrations were taken from Carlo T. E. Gay's beautiful new volume, Xochipala: The Beginnings of Olmec Art, which was reviewed in the last issue (133.1) by Nona P. Parkin.

The book may be purchased from the publisher—Art Museum, Princeton University, Princeton, New Jersey—for $3.95 (paperback) or $8.00 (clothbound).

The editors apologize for the oversight.