



BOOK OF MORMON CENTRAL

<https://bookofmormoncentral.org/>

Type: Newsletter

Insights, Vol. 30, No. 1 (2010)

Editor(s): Maxwell Institute Staff

Published by: Neal A. Maxwell Institute for Religious Scholarship



The Foundation for Ancient Research and Mormon Studies (FARMS) existed from 1979 until 2006, when it was formally incorporated into the Neal A. Maxwell Institute for Religious Scholarship. Archived by permission.

Volume 30
Number 1
2010

Breakthrough Translation of Avicenna's *Physics* Published

The Middle Eastern Texts Initiative, which publishes texts and accompanying English translations of important works of philosophy, theology, science, and mysticism from the classical Islamic period (roughly the 9th through 14th centuries), has announced the publication of a new title in its Islamic Translation Series. *Avicenna: The Physics of The Healing*, translated by Jon McGinnis, an associate professor in the Department of Philosophy of the University of Missouri, St. Louis, brings to 16 the total number of volumes published by METI in its various series.

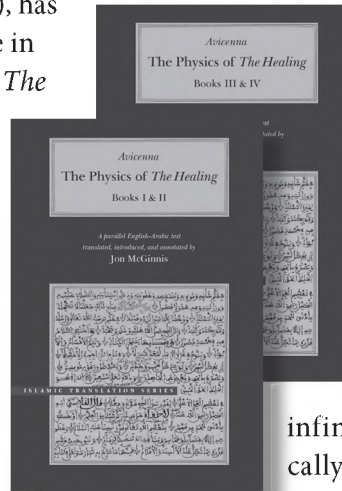
In 2005 the Islamic Translation Series issued *Avicenna: The Metaphysics of "The Healing,"* translated by Michael E. Marmura. Both the *Physics* and the *Metaphysics* are part of an encyclopedia of knowledge and philosophical reflection by Avicenna that was based on the philosophical corpus of Aristotle but infused with Islamic ideas, which impart a whole different character to Avicenna's thought. *The Healing* thus contained Avicenna's treatment of the whole range of Aristotelian topics—everything from logic and categories, to meteorology, ethics, music, and anatomy.

Avicenna (d. AD 1037) was by most accounts the greatest of the Islamic philosophers, and his *Physics* is one of his most important and challenging works. It is important because it was written as a prelude to the *Metaphysics*. As such, it is a prime source

for understanding Avicenna's overall philosophical approach as well as the groundwork he lays within it for concepts he would amplify to their fullest in the *Metaphysics*.

Two things make it challenging. First, almost any serious inquiry into the physical properties and motions of objects prior to Newton or even to Einstein was, practically by definition, grappling with phenomena that were easy to observe but difficult to explain. For example, if the distance traveled by an arrow to its target can be mathematically divided by half an infinite number of times, how is it that the arrow ever reaches its target? The classical answer that Avicenna and others grappled with posited that space was not actually infinitely divisible, even though mathematically it seemed to be. Atoms were suggested to be the elemental units of space than

which nothing could be smaller and which could not themselves be divided. The problem with this account, of course, is that it was easy to mathematically and theoretically contradict the assumption. There seemed to be no natural "hard stop" to the divisibility of space or time. In the *Physics* we see Avicenna wrestling with this conundrum and others like it. What is important is not so much that he made (or did not make) any headway on these problems, but the astuteness of his observations, the brilliance evident in his approaches to setting up and working through a problem, and the quality of his reasoning.



FOR MORE INFORMATION
Neal A. Maxwell
Institute for
Religious Scholarship
Brigham Young University
Provo, Utah 84602
(801) 422-9229
(800) 327-6715
maxwellinstitute.byu.edu

TO ORDER PUBLICATIONS
BYU Bookstore
Provo, Utah 84602
(800) 253-2578
byubookstore.com

2010 NEAL A. MAXWELL LECTURE

Mark H. Willes

President and CEO of Deseret Management Corporation

Thursday, March 11, 2010, 7:00 PM
Assembly Hall, Hinckley Center, Brigham Young University

OPEN TO THE PUBLIC

The *Physics* is also a challenging work because it was written in classical Arabic using a philosophical idiom that was itself still being worked out as he wrote his treatises. This linguistic layer of difficulty—one that even native speakers of Modern Arabic find prohibitive—only compounds the problem of trying to make out the details or even the general contours of arguments that were abstruse to begin with. A translation of this text was first submitted to the Islamic Translation Series over ten years ago by an eminent scholar of classical Islamic philosophy, but as Daniel C. Peterson, the editor in chief of the series, worked his way through that translation, he realized that it simply wasn't making sense of Avicenna. Indeed, the translator himself had made no secret of the fact that this was by far the most difficult text he had ever tackled. Help was found in the name of Jon McGinnis, a younger scholar who had devoted his entire academic career up to that point to understanding this text. For his own benefit, he had already translated a large portion of the text in an effort to read it as carefully as he could. Peterson approached him for help, which eventually led to his agreeing to complete his translation and publish it with METI.

Because of its length, the *Physics* has been published in two volumes that are sold together. The Arabic text and the English translation are given on facing pages. A number of figures and illustrations accompany the work—some of them are original to Avicenna's text, others are provided by the translator in his notes to help make difficult concepts more understandable. There is also a complete index and a glossary of terms that details how certain technical words in Arabic were interpreted into English by McGinnis.

The Physics is the seventh volume in the Islamic Translation Series. In addition to the Islamic Translation Series, METI also includes the Eastern Christian Texts series and a series called The Medical Works of Moses Maimonides, the eminent Jewish rabbi and physician.

The Middle Eastern Texts Initiative continues to benefit from the diligent effort and goodwill of scholars and sponsors across the world and across many cultural, linguistic, and religious frontiers. All METI titles are published by Brigham Young University Press and distributed by the University of Chicago Press and available through the BYU Bookstore. ♦

By D. Morgan Davis

Director, Middle Eastern Texts Initiative

BYU Herculaneum Project Honored with Mommsen Prize

On January 11, the 2009 Theodor Mommsen Prize, Section Papirologia Ercolanese, was presented to Steven Booras, senior project manager with the Maxwell Institute's Center for the Preservation of Ancient Religious Texts and to Brigham Young University for "the production of multispectral images of the Herculaneum Papyri."

The prize has been presented annually for the past 19 years by the International Center for the Study of the Herculaneum Papyri to scholars and institutions that have made the most significant contributions to research on the Herculaneum Papyri. The award ceremony was held at the beautiful and historic Stazione Zoologica Anton Dohrn in Naples, Italy. In addition to Booras attending to receive his award, Roger Macfarlane, associate professor of Classics and principal investigator of the

current Herculaneum project—which began under the auspices of the Foundation for Ancient Research and Mormon Studies and is now housed in the College of Humanities—accepted a plaque on behalf of BYU, the sponsoring institution for the project.

From 2000 to 2004, Steven and Susan Booras performed multispectral imaging (MSI) on approximately 800 trays of carbonized papyri from Herculaneum, producing approximately 35,000 images. These important papyri, containing a large number of Greek philosophical texts that are preserved nowhere else, come from a single personal library, known as the Villa of the Papyri, at Herculaneum, which was destroyed by the eruption of Mount Vesuvius in AD 79. The papyri were instantly charred (carbonized) and buried, preserving their contents but rendering them mostly or, at times, entirely illegible. Through the application of MSI, the legibility of these charred and blackened texts is vastly improved over conventional photography. ♦

Jeremiah's Game

Ancient authors loved to play with their compositions much more than we do today. In fact, it was much easier to manipulate words and structure in some ancient languages than it is in Modern English. Ancient writers even played games with the readers of their work. One such ancient Hebrew game is called *atbash*, and Jeremiah used it quite effectively.¹

The game *atbash* was supposedly played in beginning Hebrew classes in order to test the pupils' knowledge of the 22-letter Hebrew "alphabet."² It is also a simple if not primitive method of encrypting information. In this game, the letters of the Hebrew alphabet are lined up, the first half on one line and the second half on the line below, but in the reverse order. In Hebrew it looks like this:

א ב ג ד ה ו ז ח ט י כ
 ל מ נ ס ע פ צ ק ר ש ת

In anglicized form it would be as follows:

a b g d h w z h t y k
 t š r q s p ' s n m l

Thus the name comes from the first two and last two letters of the alphabet now lined up with each other and with vowels added, i.e., *atbash*. (The š character represents the phoneme /sh/) To play the game, instead of using the letter of the alphabet that would normally be used, the letter above or below that letter is substituted for it. So, using the above transliteration, a sentence might read, "He's a real sty." *Sty*, using the *atbash*, would correlate to *ham*, giving the real thrust of the insult.

The game, of course, can only be played by people who know their alphabet and who therefore can read. I will point out the implications of this later.

Jeremiah uses an *atbash* in chapter 25, verse 26. The King James translation reads, "and the king of Sheshach shall drink after them."³ The context concerns the fate of various kings and nations who oppose God's will. But the name "Sheshach" is otherwise unknown; no such place exists. The King James translators, knowing only that "Sheshach" was a place-name, simply rendered a transcription of the Hebrew ššk.

When the *atbash* key is applied to ššk, the result is *bbl*, the Hebrew name for Babylon. Jeremiah, therefore, had included the king of Babylon in his list

of kings and kingdoms that would eventually suffer the wrath of God, but he included it in a slightly encrypted form that he knew his Judean audience would understand. After all, what is the use of delivering a message that no one could understand?

The next *atbash* is a not-so-veiled threat directed at the kingdom of Babylon. In the King James translation, Jeremiah 51:1 reads, "Thus saith the Lord; Behold, I will raise up against Babylon, and against them that dwell in the midst of them that rise up against me, a destroying wind." Here Babylon is paralleled synonymously, in good Hebrew style, with "them that dwell in the midst of them." Literally, the Hebrew says, "and upon the dwellers of *lb qmy*." Because of the poetic parallel with Babylon, it is obvious that *lb qmy* is another way of saying Babylon. But *lb qmy* does not make sense in Hebrew, even though *lb* can mean "midst." Applying the *atbash*, the Hebrew reads, *kšdym*, which is the Hebrew word for Chaldeans, a synonym in Jeremiah's day for Babylonians. Thus, Jeremiah was actually saying, "Thus saith the Lord; Behold, I will raise up against Babylon and the inhabitants of Chaldea a destroying wind."

The King James of Jeremiah 51:41 also makes it clear that Jeremiah was not trying to avoid covertly offending the Babylonians. The verse reads, "How is Sheshach taken! and how is the praise of the whole earth surprised! how is Babylon become an astonishment among the nations!" Here, the *atbash*, ššk = *bbl* (the same as in the first example above), is clearly used in synonymous parallel with Babylon. Jeremiah could hardly have avoided any political consequences from such a charged statement. Could it be, rather, that Jeremiah's use of *atbash*, rather than being used as a veiled threat against Babylon, is a minor example of God giving to the people "many things which they cannot understand, because they desired it"? (Jacob 4:14).

The implications of Jeremiah's use of the game *atbash* are more than mildly interesting. First of all, the *atbash* works in Hebrew but not in Babylonian.⁴ This means that the players Jeremiah tried to engage in his game were not Babylonians but a more local audience, probably a Hebrew-speaking audience. Second, whether his message to a Hebrew audience came in the form of a public discourse or in the form of written text, we must assume, with Jeremiah, that any use of an *atbash*

works only if his audience were somewhat literate. What might this say about literacy in Jeremiah's day? Was Jeremiah purposely speaking only to that small portion of the Jewish elite who were wholly literate? Or (and this is my opinion), because he knew that the majority of his audience was literate, was he trying to reach as broad an audience as he possibly could, a message to all the people of Judea?

If the latter is true, and there is mounting evidence that literacy was more widespread than had been previously thought, literacy in Jeremiah's day has implications for those passages in the Book of Mormon that suggest a similar level of literacy for Nephite culture. For example, in Alma 14:8, it would seem that "records" refers to multiple copies of the "holy scriptures." Multiple copies would seem to imply that more than a few people could read the "holy scriptures." This is clearly the case in Alma 33:2, where the prophet admonished the poorer class among the Zoramites to "search the scriptures." Unless the poorer Zoramites were literate, Alma's admonition to read their scriptures would have been at best a senseless challenge. But they were literate! As Alma said, "Do ye remember to have read what Zenos, the prophet of old," whose writings were on the brass plates, "has said concerning prayer or worship?" (Alma 33:3). If Jeremiah's use of atbash for a general Judean audience indicates a fairly broad level of literacy among Judeans, then Alma's admonition to the Zoramite poorer class to read their scriptures rings true.

The only frustrating aspect of finding atbash in the Hebrew Bible is that an atbash cannot survive translation into another language.⁵ Thus, any atbash that might have been included on the small or large plates of Nephi and/or that made it into Mormon's abridgment would probably not have survived the translation into English. Too bad. ♦

By Paul Y. Hoskisson

Director, Laura F. Willes Center for Book of Mormon Studies and the Foundation for Ancient Research and Mormon Studies

Notes

1. This article is heavily dependent on many sources. For a good discussion of atbash in Jeremiah, see Scott B. Noegel, "Atbash in Jeremiah and Its Literary Significance,

Part 1," *Jewish Bible Quarterly* 24/2 (1996): 82–89; "Part 2," 24/3: 160–66; "Part 3," 24/4: 247–50. For earlier references to atbash, see John Bright, "Jeremiah," *Anchor Bible*, ed. William Foxwell Albright and David Noel Freedman (Garden City, NY: Doubleday, 1965), 21:161; James Philip Hyatt, "Jeremiah," in George Arthur Buttrick et al., eds., *The Interpreter's Bible* (New York: Abingdon, 1956), 5:1003; H.-F. Weiss, "Athbasch," in *Biblich-historisches Handwörterbuch*, ed. Bo Reicke and Leonhard Rost, vol. 1, A–G (Göttingen: Vandenhoeck und Ruprecht, 1962), col. 145; and Wilhelm Rudolph, "Jeremía" (under 25:26, 51:1), *Handbuch zum Alten Testament*, ed. Otto Eissfeldt, vol. 12, 3rd ed. (Tübingen: Mohr [Paul Siebeck], 1968).

2. The Hebrew alphabet is not a true alphabet in that it does not contain any vowels, only consonants. The Greeks were the first to add vowels to an alphabet.

3. Bright translates, "And the king of 'Sheshak' (and you know who that is!) will drink last of all." "Jeremiah," 158.

4. In theory Jeremiah's atbash could work in other northwest Semitic languages. For example, the second example could work in Phoenician but would not function perfectly in Aramaic.

5. From English alone (or any other non-Semitic language) it would not be possible to figure out that $\text{ššk} = \text{bbl}$. It only works if you know Hebrew.

INSIGHTS

Paul Y. Hoskisson, D. Morgan Davis, *General Editors*

Paula W. Hicken, *Editor*

A Publication of the

NEAL A. MAXWELL INSTITUTE
FOR RELIGIOUS SCHOLARSHIP

M. Gerald Bradford, *Executive Director*

Academic Council

M. Gerald Bradford, D. Morgan Davis, John Gee,
Kristian Heal, Paul Y. Hoskisson, Daniel C. Peterson

Publications Department

Alison V. P. Coutts, *Director*

Donald L. Brugger, Paula W. Hicken,
Shirley S. Ricks, Sandra A. Thorne

By furthering religious scholarship through the study of scripture and other texts, Brigham Young University's Neal A. Maxwell Institute for Religious Scholarship seeks to deepen understanding and nurture discipleship among Latter-day Saints while promoting mutual respect and goodwill among people of all faiths.

