

ARCHAEOLOGY / 'MAY THIS TUSK ROOT OUT THE LICE OF THE HAIR AND THE BEARD'

Ivory lice comb – a dating head-scratcher – may hold earliest Canaanite sentence

With a paucity of contemporary Bronze Age examples for comparison, scholars believe reliable 7-word inscription is first recorded complete proto-Canaanite sentence in Holy Land

By **AMANDA BORSCHEL-DAN** | 9 November 2022, 6:09 am



Aerial view of Tel Lachish (Emil Aladjem)

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The first — and only — early Canaanite sentence was recently deciphered on a Middle Bronze Age ivory lice comb found during a 2016 excavation at Lachish in central Israel. According to epigrapher Dr. Daniel Vainstub, the inscription dates to circa 17th century BCE, which is about four centuries prior to the settlement of the Israelites in the Land of Canaan.

The inscription, “May this tusk root out the lice of the hair and the beard,” is a plea of the most mundane and eternally valid kind. Lice, the Argentine-born Vainstub reminded The Times of Israel, is after all the third of the ten plagues of Egypt.

According to Vainstub, “the comb’s inscription is written in the style that characterized the very earliest stage of the alphabet’s development.” Therefore, since the earliest Canaanite inscriptions in Sinai are dated to the 19th century BCE, Vainstub dates the comb to the earliest settlement at Lachish — the 17th century BCE.

The inscription contains 17 tiny, 1-to-3 mm pictographic letters that form seven words. The scribe etched them into the ivory in upside-down rows as he flipped the comb in his hand looking for blank space. The result is quasi-professional, according to Vainstub: The letters become progressively smaller and lower towards the end of the first row. And at the end of the second row, the engraver apparently ran out of space before finishing his word, so he etched a letter below the row.

The quality of its craftsmanship aside, as the article states, the comb’s words “for the first time provide us with a complete reliable sentence in a Canaanite dialect, written in the Canaanite script.”

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Ben Gurion University's Vainstub is the lead author of the article, "A Canaanite's Wish to Eradicate Lice on an Inscribed Ivory Comb from Lachish," published in the Hebrew University-affiliated [online](#) Jerusalem Journal of Archaeology.

This complete — and completely relatable — sentence will cause a ripple effect in the study of proto-Canaanite. It could influence the way scholars understand its grammar, syntax and vocabulary. It may be the only preserved example of the now-extinct Hebrew letter "sin." It is also likely the earliest record of the word "tusk" until its use in Rabbinic Hebrew two thousand years later.



A 17th century BCE inscription in early Canaanite script from Lachish, incised on an ivory lice comb. (Dafna Gazit, Israel Antiquities Authority)

Even more intriguingly, it points to a much more widespread literacy in the pre-biblical 17th century Canaan than previously thought. If words are etched on an everyday item — albeit from imported, expensive elephant tusk — what else was being written on?

But what isn't in the article is that the world has a camera thief to thank for this discovery.

'Am I dreaming or do you see letters?'

The comb was unearthed at Lachish from a trash pit of jumbled periods, including a number of complete vessels dating to the 7th–6th centuries BCE and earlier artifacts. That Tel Lachish excavation, which ended in 2017, was conducted by a team from the Hebrew University of Jerusalem (HU) and Southern Adventist University in the United States, under the direction of Professors Yosef Garfinkel, Michael Hasel and Martin Klingbeil.



Dr. Daniel Vainstub points out the various historical sites at Qumran National Park, October 2021. (Shmuel Bar-Am)

"The comb inscription is direct evidence for the use of the alphabet in daily activities some 3,700 years ago. This is a landmark in the history of the human ability to write," said excavation director Garfinkel in a press release.

But although the comb is visibly scratched — as one would expect from millennia of subterranean wear and tear — its inscription was initially overlooked and it was set aside, earmarked for inclusion in a study of three additional lice combs discovered at Lachish.

A scientist as well as an archaeologist, Dr. Madeleine Mumcuoglu checked the comb for remains of lice under a Dino-Lite digital microscope and minute residue of head lice was found on the second tooth. She too put it to the side after finding no hope of harvesting ancient lice DNA.

The shallow inscription was only discovered years later in 2021 when Mumcuoglu took out her iPhone to photograph it while finishing up her study. Her “better” camera had been recently stolen, she told The Times of Israel on Tuesday. But when she enhanced the lighting on the tiny 3.5cm x 2.5cm comb to get a good shot with her phone, she noted what appeared to be deliberate etchings of letters.

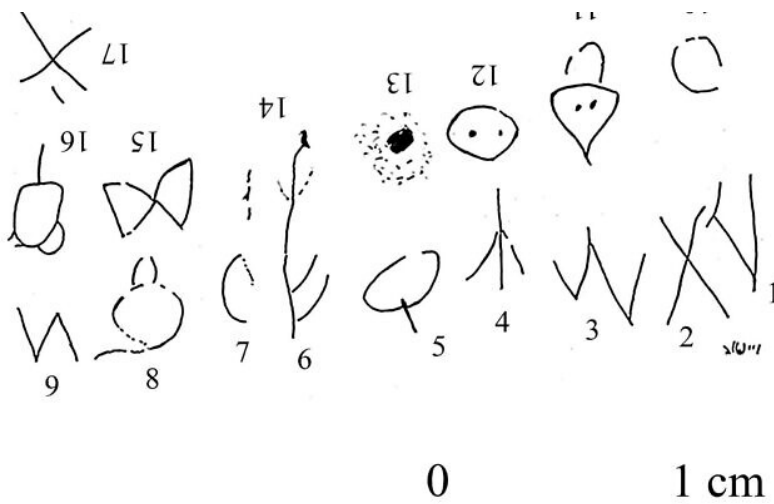
She immediately sent an image to her friend and colleague Vainstub and asked the epigrapher, “Am I dreaming or do you see letters?”

Vainstub told The Times of Israel that he quickly identified several clear proto-Canaanite letters and asked to examine the comb. He said he made relatively quick work of the inscription following the results of Reflectance Transformation Imaging (RTI) in the Jerusalem labs of the Israel Antiquities Authority as the RTI photographs brought out the unseen grooves of the scribe’s etching.



Dr. Madeleine Mumcuoglu (Courtesy Hebrew University)

What was more difficult for the scholar was shoring up his conclusions with parallel examples from contemporary inscriptions. While some dozen inscriptions have been discovered at Lachish, only one — four words incised into a Middle Bronze-era dagger found in a tomb — is likely contemporary to the comb. The most comparable proto-Canaanite inscriptions hail from Serabit el-Khadem in southern Sinai and are dated by squabbling scholars from anywhere from the 19th century BCE to the 13th century BCE.



Rendering of a 17th century BCE inscription in early Canaanite script from Lachish, incised on an ivory lice comb. (Daniel Vainstub)

There are some linguistic discoveries that are found here for the first time in a Canaanite inscription, said Vainstub. “I discovered the letter ‘sin’ — the Canaanites had a special letter for that. Here we have that letter.” (In modern Hebrew it is denoted by a dot on the left side of a letter, versus the right, “shin.”)

The Canaanites’ original alphabet was 29 letters, which in time shrank to 22. But in the southern Arabian cultures, the full 29-letter alphabet was preserved until the 7th century CE. The letter “sin,” he said, was preserved in the southern Arabian peninsula, in today’s Yemen, through the ancient South Arabian alphabet, which was derived from the Canaanite one.

However, linking a “lost” 17th-century BCE letter to the South Arabian alphabet is not without problems. The most ancient of these inscriptions are dated to the 11th century BCE, said Vainstub, and are very few in number. Many more inscriptions are found there from the 8th century BCE onwards, he said.

Dating dilemma

The research team turned to carbon dating of the ivory for an outside indication of the age of the comb. Twice, samples failed to register and so the epigraphy — the shapes of the letters — is the sole basis for its dating.

The Times of Israel approached three world-renowned epigrapher scholars who unanimously supported Vainstub's methodology and scholarship.

"I am certain that there is some room for debating the precise date for this new comb inscription from Lachish, but I would emphasize that this inscription is certainly written in the Canaanite script (i.e., Early Alphabetic script) and that it dates to the earlier period of this script. In other words, this is a very early alphabetic inscription," said Prof. Christopher A. Rollston of George Washington University, who was also a peer reviewer of the article.

Rollston added: "This Bronze Age inscribed comb joins a chorus of important inscriptions from this crucial ancient site, inscriptions dating to the Bronze and Iron Ages... and these inscriptions from the Bronze and Iron Ages are written in a variety of different languages and scripts. Literarily, this is quite a site!"

French polymath independent epigrapher and historian Dr. Michael Langlois called the new inscription "a missing link in the history of the alphabet." He added, "It is all the more frustrating that it cannot be precisely dated."

Langlois elaborated, giving some potential scenarios for its find spot at Lachish.

"Contrary to what we would expect from the archaeological context in which it was found, the inscription does not use the old Hebrew script (also called Palaeo-Hebrew), which was the standard script in the Kingdom of Judah," he said. "Yet the comb was found in a stratigraphical context that corresponds to the Kingdom of Judah. There is a sort of anachronism: to our knowledge, the script featured on the comb was no longer in use at the time.

"I can think of several explanations: (1) contrary to our current working hypothesis, this script was still in use half a millennium later than we thought, and cohabited with the old Hebrew script; (2) in the late Kingdom of Judah, someone decided, for whatever reason, to resuscitate or imitate this old script even though it was no longer in use for centuries; (3) the comb is actually much older and was kept for centuries. This is the most probable hypothesis: three other combs were found in Lachish, and all date to the second millennium BCE, which is precisely when the script was in use," Langlois told The Times of Israel.



Prof. Christopher Rollston inspecting the inscribed late 9th or early 8th century BCE altar that was discovered in a Moabite sanctuary at the Khirbat Ataruz site in central Jordan in 2010. (Courtesy)



Aerial view of Tel Lachish (Emil Aladjem)

Israeli epigrapher, Dr. Haggai Misgav, a lecturer at the Hebrew University, told The Times of Israel that inscriptions in this script are difficult to decipher because there is relatively little information available about them, especially in such an early period when there is great variability in the scribes.

“Daniel Vainstub’s work is thorough and worthy of praise and has yielded an interesting reading... I imagine there will be those who disagree with the identification of certain letters (but not the fact that there are letters). I don’t have a better reading to offer,” Misgav wrote in an email.

The third plague

The inscription is a plea, a wish, or a desire that the small comb be successful in getting rid of the irritating lice. What it is not, interestingly, is a prayer, said Vainstub, although its language echoes that of the biblical Priestly Blessing in structure.

“The ancient world is a believing world, atheism did not exist and people would use their deities whenever possible, but not here. This is an entirely secular inscription. There’s no god here. It’s not a prayer,” said Vainstub.

“Then, and today, for most of our lives we don’t busy ourselves with ideology, but with day-to-day matters, with human existence, and part of the human experience is fighting lice, which was a real plague — the third plague,” laughed Vainstub.



Female human head louse, *Pediculus humanus capitis*. (Gilles San Martin, CC-BY-SA, via wikipedia)

Mumcuoglu asserted that the comb definitely belonged to an important man. Regarding its very small size, she wondered out loud, “I was thinking that even until today, people are ashamed of having lice, which is not reasonable. No one should be ashamed of having lice. We know today that lice prefer clean hair — it is not a sign of poor hygiene, on the contrary. But maybe back then they were ashamed of being infected and if the headlice were pestering their beard, they could take the [tiny] comb out in secret and then hide it in a pocket.”

Rollston was likewise sympathetic to the ancient owner’s plight. “The fact that this inscription is about ordinary life is especially fascinating. Throughout human history, lice have been a perennial problem. And this inscription nicely reveals that even ‘the rich and famous’ in ancient times (or modern times!) are not exempt from such problems. We can only hope that this inscribed comb was useful in doing that which it says it was supposed to do: root out some of these pesky insects,” he wrote.

Langlois, who is easily identified at crowded academic conferences by his flowing locks, echoed his peers’ sentiments and took a slightly more philosophical view: “I find it quite amusing that such an important inscription... is actually about a very down-to-earth issue which we still face today: getting rid of lice! Even though it is less of a problem today, all of us parents know what a nightmare it can be.

“As a historian, I feel privileged to study ancient people’s daily life. History helps us know who we are as human beings, throughout time and space. And by knowing who we are as human beings, our variables and constants, we can plot our trajectory and make better decisions for our future,” wrote Langlois.



Michael Langlois holds a PhD in Historical and Philological Sciences from the Sorbonne and is today a researcher at the French Researcher Center in Jerusalem. (Veikko Somerpuro)

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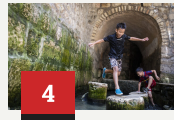
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