



THE IRON AGE I BEAD OF KHIRBET EL-MAQATIR

How a Small Archaeological Find Can Tell a Greater Story

by **Boyd Seevers and Victoria Dennis**

The study of archaeology often involves the recovery and detailed analysis of ancient objects like pottery fragments or grinding stones. These may seem mundane, but sometimes they yield detailed and fascinating information about ancient cultures and peoples. This is evident in the case of a single, small carnelian bead discovered at the Iron Age I site of Khirbet el-Maqatir in Israel's West Bank. An analysis of the bead's raw material, the way it was made, its cultural context, and how it compares to similar small beads from nearby contemporary sites tells a greater story about the Israelite culture that produced it at the time of Judges.

Khirbet el-Maqatir is a small archaeological site located approximately ten miles north of Jerusalem in central Israel, excavated by the Associates for Biblical Research from 1995–2016, first under the direction of Bryant Wood and later under Scott Stripling. An apparent location for the biblical city of Ai mentioned in Joshua 7–8, the site also includes a small Israelite settlement dating to Iron Age I (1200–1000 BC), the time of the book of Judges, and one of the small finds from this settlement was a single stone bead.

The bead was made from an opaque red and white stone with a beautiful pattern of stripes on one side. The stone is carnelian, a semi-precious gemstone often used for beads and seals because it is frequently colored red by impurities of iron oxide. Carnelian is a variety of chalcedony—a form of

quartz—a hard stone that measures 6–7 out of 10 on the Mohs hardness scale. Carnelian is found in Egypt and the Sinai¹ and some local deposits are known in Israel.²

In form, this small bead is simple and inelegant, with few distinguishing features and relatively little artistic value. About 0.6 cm wide and weighing 0.2 g, its shape is roughly spherical or oblate—common shapes for such small beads found at contemporary sites. Overall the quality of craftsmanship is poor, with distinctly irregular shaping but a nicely smoothed surface and a clean, straight hole. The workmanship suggests that the craftsman put good effort into making the bead but had limited skill.

The manufacturing of such beads in the ancient world was an involved process that required extensive amounts of time and effort. Workmen crafted beads from stone, faience, or glass, with stone being the most popular option³ and they fashioned them in a variety of ways. The method likely used to make the bead from Khirbet el-Maqatir began with a small pebble or chunk of carnelian, perhaps acquired in Israel or from Egypt or Sinai, possibly during the Israelite sojourns in those regions, and then brought to Israel at the time of the conquest.

After obtaining the raw carnelian, the craftsman did preliminary shaping of the bead's exterior by chipping off pieces of stone to create the rough final form. Workmen normally left a rough exterior in order to not waste time and effort crafting a beautiful shape, only to have the bead break during later stages of manufacturing.⁴

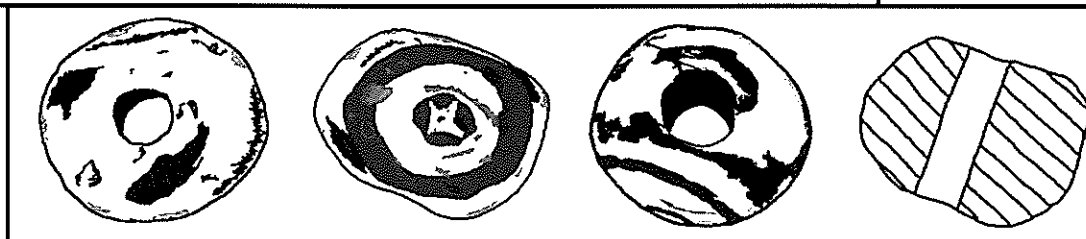


Bead from Khirbet el-Maqatir—top, bottom and side views.

Michael C. Luddeni

Table 1: Physical characteristics of bead

Material	Form	Thickness	I.D.	O.D.	Weight	Notes
Carnelian	Roughly spherical/oblate	0.4 cm	0.2cm	0.6cm	0.2 g	Irregularly shaped but nicely-smoothed surface

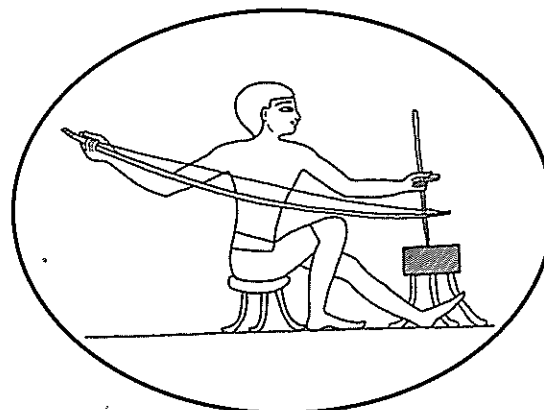


Top, bottom and side views; cross section of bead.

Next came the most difficult step in the process of bead manufacturing—drilling the hole. Some perforation methods (chipping with flint or metal)⁵ produced rougher, more irregular holes, so this bead’s clean, straight, relatively wide hole was likely made using a bow drill and a bronze drill-point. In this method, the craftsman used a bow-shaped piece of wood with a string wrapped around a wooden handle holding a bronze drill bit. Moving the bow back and forth caused the bit to spin rapidly and gradually bore a hole in the stone. Often the craftsman would drill from one side of the bead and then the other, with the hope that the holes would meet in the middle and the bead would not crack. Unfortunately, this difficult process often ended with a cracked bead, and was also incredibly time consuming. Modern experiments have shown that drilling a one-millimeter wide hole in a single quartz bead in this fashion could take four hours,⁶ a slow process that would have made well-crafted beads very valuable and expensive.

After the hole was successfully formed, the craftsman would further chip and then smooth the exterior of the bead using quartz or rough sand to give the bead its final shape and polish.⁷ The intended result was a beautiful and valuable piece of jewelry that could serve a variety of purposes.

Due to beads’ versatility, beauty, and durability, people across the world have prized them from prehistoric times to the present. In the ancient Near East, beads were valued for their aesthetic nature, monetary value, and symbolic significance. Allen notes, “They were important status symbols, used as adornment in many rituals and ceremonies, and were also burial gifts for the dead.”⁸ They could also be used as currency, or of course jewelry, remaining in families as heirlooms for generations, and they often were believed to have magical



Drawings by Victoria Dennis

Illustration of bow-drilling from an Egyptian tomb.

powers.⁹ Many ancient people believed that specific types of stone had supernatural power to provide good fortune or protection from danger, or bring divine blessing or good health.¹⁰

While beads served a variety of purposes in the ancient world, certain characteristics of the bead from Khirbet el-Maqtir aid in better understanding both its immediate cultural context and its specific significance. Because of its poor craftsmanship, it may have carried little monetary value. Its low quality suggests that the inhabitants of Khirbet el-Maqtir in Iron Age I were poor, with few possessions of value and little ability to create or buy objects of luxury. But to such people, even a rough bead could be prized as an object of beauty. And the wide,¹¹ smooth, circular hole may not just have been a product of bow-drilling; it could also have resulted, in part, from the hole rubbing against string for many, many years, because the bead was worn often and could have served as an heirloom, passed along for multiple generations. Altogether,

Table 2: Select Iron Age I sites with carnelian beads

Location	Number	Forms	Source
Khirbet Dawwara	1	Bi-conical	Finkelstein 1990, p. 196
Beitin	6	Oblate disc, short & long barrel	Kelso, p.85, Pl. 46
Shiloh	1	Rounded bi-conical	Finkelstein 1993, p. 266
Megiddo	29	10 forms	Guy, Table IV
Hazor	2	Spherical	Yadin, Pl. 295:33, 234:20
Deir el-Balah	2	Spherical	Dothan, p. 81, Figs. 182, 186

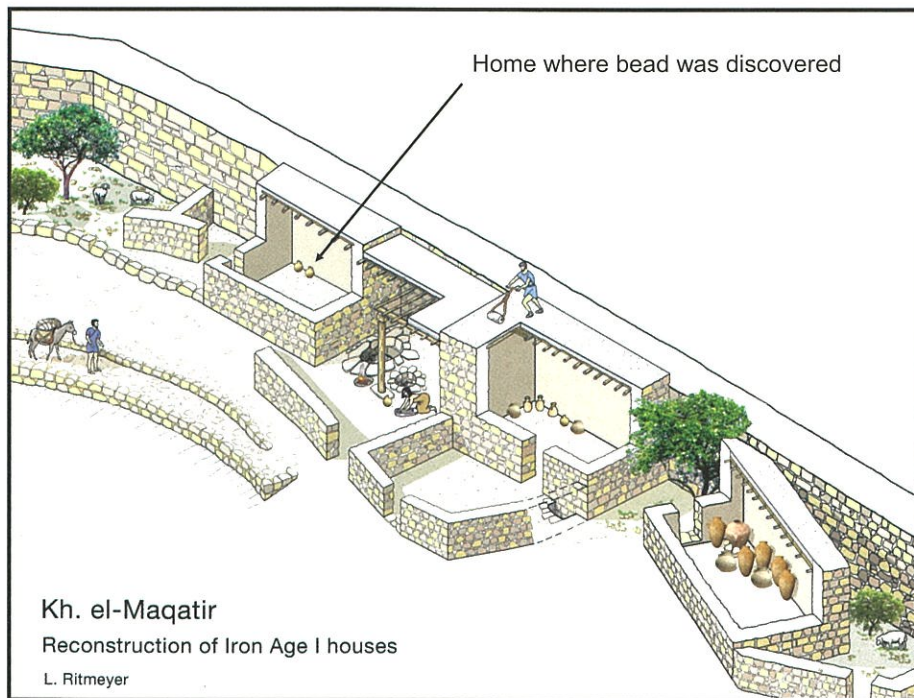


Illustration of small homes at Khirbet el-Maqatir.

the bead from Khirbet el-Maqatir suggests that the Israelites living there during Iron Age I were poor and not highly skilled, but likely treasured this poor-quality bead.

Comparing this bead to carnelian beads found at various contemporary sites adds even greater depth to its significance. Similar beads have come to light at the nearby Iron Age I Israelite sites of Khirbet Dawwara, Beitin (published as Bethel), and Shiloh (see Table 2). Yet more—and much more finely crafted—beads were discovered at larger, more distant sites such as Canaanite Hazor or in lavish Egyptian tombs at Megiddo and Deir el-Balah. However, such large, wealthy sites were far removed geographically and culturally from the small, poor settlement at Khirbet el-Maqatir, and the beads from those sites were more skillfully made and of greater value than the simple Khirbet el-Maqatir bead.

Thus it follows that within a setting like this poor Israelite settlement at Khirbet el-Maqatir, the rough nature of this bead is exactly what one would expect. Indeed, during Iron Age I, Israelite craftsmanship in most aspects of their material culture was quite low when compared with the remains of other time periods and locations, even with beads. As W.F. Albright noted, “[Beads] become extremely inferior in quality in the Iron Age, when compared to Bronze-Age examples.”¹²

Such beads and other material items give us a glimpse into the poor living conditions that would have existed in a poor settlement such as Khirbet el-Maqatir at the time of Judges. Excavations at Khirbet el-Maqatir show that these people used rough pottery and poorly crafted tools, and lived in small houses with few furnishings.¹³ Likely, these characteristics reflect the transition of a previously nomadic people settling into more permanent living conditions and developing various aspects of their material culture.¹⁴ This also fits well with the narrative in Judges of the Israelites settling into Canaan after the conquest, and illuminates something of the hard life they

lived during their early years in the land.

In conclusion, one can learn a great deal about Israelite culture during the time of Judges from examining the single bead from Khirbet el-Maqatir. The inhabitants of such rural settlements in central Israel during Iron Age I lived hard lives with few comforts, and their scarce objects of luxury were often small and poorly made. However, they still enjoyed beautiful things and were willing to invest time and effort to acquire them, and apparently kept them for long periods of time. Such analysis helps explain why archaeology often focuses on small, everyday objects. They tell us much about the lives and cultures of ordinary people, illuminating details left out of the great events of Scripture and other historical texts, even using information from something as mundane as a small, poorly crafted bead.

Endnotes for this article can be found at www.BibleArchaeology.org. Type “Endnotes” in the search box; next, click the “Bible and Spade Bibliographies and Endnotes” link; then page down to the article.

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